International Conference on Educational Research 2010
Learning Community for Sustainable Development
Faculty of Education, Khon Kaen University
Khon Kaen, Thailand
September 10-11, 2010
Message from the Dean

Faculty of Education, Khon Kaen University, Thailand

Greeting to all participants and welcome to Faculty of Education, Khon Kaen University

The International Conference on Educational Research 2010 is the 3rd annual conference to celebrate the 42nd anniversary of the establishment of Faculty of Education, Khon Kaen University. The function is a collaborative effort for sustainable development research jointly organized by The Faculty of Education, Khon Kaen University of Thailand, The Hirosaki University of Japan, the Hong Kong Institute of Education of China, Thailand Education Deans Council and The Consortium of Sixteen Education Dean of Thailand.

The 1st ICER conference was held during 12th and 13th of September, 2008 at Kosa Hotel in Khon Kaen while the 2nd one was held during 11th and 12th of September, 2009 at the Faculty of Education, Khon Kaen University.

The goals of this conference are to give international educators the opportunity to share ideas and form networks while working together on finding solutions to the problem of sustainable development facing educators.

It is anticipated that the exchange of ideas and research findings will contribute greatly to the learning community and future generations.

As the Dean of the Faculty of Education, I would like to express my gratitude and my sincere appreciation to our co-host Universities, the guest speakers, the organizing committees for their efforts. I also would like to thanks all delegations and participants who come from afar to join this event.

Assistant professor Paisan Suwannoi, Ed.D.
Dean, Faculty of Education,
Khon Kaen University, THAILAND
Message from Co-host

The Hong Kong Institute of Education (HKIEd)

The Hong Kong Institute of Education (HKIEd) was established in April 1994 and has a growing international reputation for excellence in preparing globally aware professional educators, providing high quality culturally enriched educational experiences, and for producing research of distinction. Central to the Institute’s internationalization policy is a commitment to developing international and regional networks that will facilitate the integration of an international, intercultural or global dimension into the teaching, learning, research and service functions of the institution. It is against this backdrop that the HKIEd is proud to be invited by Khon Kaen University to co-host the 2010 International Conference on Educational Research.

Dr. Peter Bodycott
Associate Professor
Director, International Office
The Hong Kong Institute of Education, CHINA
Message from Co-host

*Hirosaki University, Japan*

Greeting to you all and welcome to the International Conference on Educational Research (ICER) 2010: Learning Communities for Sustainable Development which will be held September 10 and 11, 2010 in Khon Kaen, Thailand.

It is great honor for us to be able to host this very important international conference and we would like to publicly thank the Faculty of Education, of Khon Kaen University which has taken a lead role in arranging this conference. This second conference will be more fruitful and productive, basing on experiences in the first conference in last year.

In Thailand, and in many other parts of the world, education reform continues. Globalization has the big impact on education reform. To adopt this tendency properly, we have to check the existing education systems. This conference provides with good opportunities to share knowledge, practices and plans in education reforms towards the conference targets. International character of this conference specially gives us the chance to consider globalization.

We would like to assure you that this ICER conference will give all participants opportunities to share ideas, to form networks, and to join together to work on education for sustainable development.

Again, I would like to express my sincere appreciation to Khon Kean University, Thailand as well as the Hong Kong Institute of Education, Hong Kong which gave us the opportunity to jointly organize this International Conference on Educational Research (ICER) 2010.

*S. Kuramata*

Professor Dr. Shuichi KURAMATA
Director
International Student Exchange Center
Hirosaki University, JAPAN
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Inclusive Education in Indonesia: Strategy for its Sustainable Development

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ABSTRACT

Education for children with special needs in Indonesia was started when the school for children with visual impairment was established at Bandung in 1901. After Indonesian independence in 1945, special schools for different children with special needs developed rapidly. Some efforts have been made in making the children with special needs are able to grow up independently. Various educational services have been continuously trying to improve the quality of education for children with special needs from segregation approach to the integration one that emphasizing on the mainstreaming. Recently another innovative effort has been forwarding to the inclusion approach. Inclusive education in Indonesia has been introduced in 2000. After ten years, approximately 15,181 students with special needs are enrolling at the ordinary schools. This number is still low compare to children with special needs that enroll at special schools. According to the latest data, about 74,150 children with special needs are now enrolling at the special schools. In Indonesia, there has not any specific census yet conducted on children with special needs. It is estimated that total population of children with special needs tend to be around one million and more persons. The rest of them may exist at the community but with various reasons they do not go to schools. Inclusive education is a one way to solve this problem. It is in line with the 1945 Constitution article 31 clause 1 that, “every citizen has a right to education.” and the Ministry of National Education’s Rule Number 70/2009 concerning Inclusive Education. However some strategies are needed to implement inclusive education in the field. Dissemination of the ideology of inclusive education is one out of some ways for implementing such program.

Keywords: children with special needs, special school, inclusive education

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Introduction

Education for children with special needs in Indonesia was started with segregation approach at Bandung in 1901. The school for children with visual impairment is the first school that established during the colonial time. After Indonesian independence in 1945, special school for different of children with special needs developed rapidly.

In this type of approach children with special needs are accommodated separately from normal children both in learning process and societal life. This kind of school is usually provided by dormitory which separated from families. There are five types of special schools, consist of: Special School for Visual Impairment (SLB-A), Special School for Hearing Impairment (SLB-B), Special School for Intellectual Disability (SLB-C), Special School for Physically Handicapped (SLB-D), and Special School for Emotional and Behavioral Disorders (SLB-E).

In 1978, Ministry of National Education of Indonesia made collaboration with Helen Keller International Inc., USA to introduce integrated education for children with special needs. Based on this collaboration, some piloting of integrated education has been made in some cities. This approach has been made possible for children with special needs to live and to work together with normal children. So far as possible he or she would not be separated from the normal environment. This togetherness principle has been the major characteristics of the integration approach.

Inclusive education is a latest approach in education for children with special needs in Indonesia. Towards the end of 1990’s new efforts were made to develop inclusive education through a cooperation project between the Ministry of National Education and the Norwegian government under the management of Braillo Norway and the Directorate of Special Education at national level. Beside those efforts there are also many international trends influencing the implementation of inclusive education in Indonesia, such as Declaration of Human Right-including the right to education and full participation in society for all people, Convention of the Rights of the Child, Education for All, the Standards Rules on the Equalization of Opportunities for Persons with Disabilities, the Salamanca Statement on Inclusive Education, and Dakar Commitment to Education for All.

Inclusive education seeks to address the learning needs of all children youth and adults with a specific focus on those who are vulnerable to marginalization and exclusion. The principle of inclusive education was first adopted at the Salamanca World Conference on Special Needs Education in 1994. Inclusive education means that: “.......... schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions. This should include disabled and gifted children, street and working children, children from remote or nomadic populations, children from linguistic, ethnic or cultural minorities and children from other disadvantaged or marginalized areas or groups” (The Salamanca Statement and Framework for Action on Special Needs Education, para 3).

In order to strengthen the implementation of inclusive education, the Government of Indonesia has led to the issuing of the Ministry of National Education’s Rule Number 70/200 concerning Inclusive Education for Children with Disability and Gifted and/or Talented.
Enrolment of Children with Special Needs at School

In Indonesia, there has not any specific census yet conducted on children with special needs. For the purpose of governmental policy, however, it has been estimated about 3% of schooling age children (7-18 years old) belonging to those special needs. Data and projection of students, including students with special needs derived from the Directorate of Special Education (2009) is as follows: at primary school level population of children age 7-12 year is 26.347.268, population of children with disability age 7-12 year is 184.431, and enrolment students with disability is 53.370. At Junior School population of children age 13-15 year is 13,419,559, population of children with disability is 93,937, and enrolment children with disability is 14.143. At Senior High School the population of children age 16 – 18 year is 12,789,697, children with disability include at this ages is 89,528, and enrolment of children with disability at this stage is 6.637.

Total numbers of children with special needs who are being accommodated in ordinary school or in inclusive education setting range from kindergarten to senior high schools are 15.181 at 814 schools. Its consist of children with visual impairment 385, hearing impairment 291, intellectual disability 2,219, physically handicapped 267, and other 12,018.

Strategy for Sustainability of Inclusive Education

Integrated education, as mentioned above, in Indonesia formally introduced in 1978. When the integrated education project was over, the implementation of integrated education was practiced less and less, especially in primary school level. In order not to repeat the past experience with the integrated education program that died out, attention has been paid to the sustainability of the program of implementing inclusive education. The strategy of the program is as follows:

- Dissemination of the ideology of inclusive education through seminars and workshops;
- Changing the role of existing special schools to become resource centres to support inclusive schools (with teaching equipment, learning materials, methodology, etc.);
- Upgrading/training special school teachers as well as regular school teachers to enable them to better serve children with special needs in inclusive settings;
- Reorientation of teachers education at universities and involvement of universities in the program;
- Decentralization of policy making to give more role to local governments in the implementation of inclusive education;
- Encouraging and facilitating the formation of working groups to promote the implementation of inclusive education;
- Involvement of NGOs and international organizations in the program;
- Networking among various parties involved;
- Setting up pilot inclusive schools;
- Establishment of the master program in inclusion and special needs education.

The ultimate goal of all the efforts above is the well being of persons with disabilities as citizens with all their rights fulfilled. Whether or not the current placement
of children with disabilities in regular schools will actually be good for their well being, it needs time to prove this; but we believe it will and we are hopeful as long as they are being given proper support as designed for them.

References:


Lifelong Learning for the Changing World of Work

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ABSTRACT

Thailand is a Buddhist country and so I am guided by the words and wisdom of Lord Buddha who noted that change is a fundamental part of life, and that the certainty we must come to terms with is that constant change is inevitable. During some earlier periods of history the winds of change blew gently and slowly, but at other times, such as in the 20th and 21st Centuries, the wind has become at least a stiff breeze, and more often than not of hurricane force. How we accommodate the certainty of often unpredictable change has a major impact on the way we live, and how we as individual build our lives and those of our communities.

Nowhere is change more apparent than in the world of work, and so I plan to examine in my presentation today how we need to re-engineer our education systems to accommodate and cope with challenges associated with the changing world of work.

In this regard, we need to think ‘outside the box’ of formal, traditional forms of schooling, since this is too constraining. Instead we need to be more forward looking, exploring productively the possibilities offered by lifelong learning.

1. Introduction:

Work is a major feature in most people’s lives. Not only does it provide them with the means of survival in terms of food, clothing and shelter, but the type of work undertaken by individuals and groups has a major impact on their self identify, social status and standard of living.

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1 This presentation largely draws on my recent six volume International Handbook on Education for the Changing World of Work (Maclean and Wilson, Eds., 2009, Springer International Publishers), which includes chapters and a comprehensive reading list that elaborates on the arguments presented in this paper. To download the complimentary power point see the HKIEd website.

2 Rupert MACLEAN is also a Senior Research Fellow at the Department of Education, Oxford University; Adjunct Professor of International Education at East China Normal University, Shanghai, and at RMIT University, Melbourne; Special Advisor on Curriculum Development and Reform, Zhejiang Technology Institute of Economy, Hangzhou Province, China; and Member, Advisory Board, Colombo Plan Staff Training College, Manila, Philippines. He is well known from his numerous published international handbooks, books, chapters, articles and reports, particularly on skills development for employability, teachers and teacher education, and the reform of secondary education. Some of these have been translated from English into French, Spanish, Russian, Arabic, Chinese, and Japanese. Professor Maclean particularly has a deep understanding of reform efforts concerning education and schooling in the Asia-Pacific region.
As countries, world-wide, seek to achieve sustainable economic and social development, increasing attention to being given to strengthening the bridge between education/schooling and preparation for the world of work, with particular reference to upgrading systems vocational education and training, and the contribution of lifelong learning. In this presentation I will use the term TVET (Technical and Vocational Education and Training) rather than the narrower term VET (Vocational Education and Training), since this was recommended and agreed upon by countries attending the International Congress on TVET held in Seoul, Korea, in 1999.

In my presentation today I will examine:

- Why technical and vocational education and training is becoming increasingly important, particularly when it comes to achieving poverty alleviation and sustainable development.
- The need to develop new education paradigms for TVET which meet the pressing, and far-reaching, requirements of radically changing, modernizing and globalizing societies in the Asia region, as they seek to move from the Industrial to the Information Age; and,
- The importance of developing and implementing innovative approaches to vocational skills development for employability and sustainable development to achieve positive, concrete long-term results.

I will also argue that it is important to increasingly think in terms of Lifelong Learning, if we are to have TVET Skills Development for poverty alleviation and sustainable development. Lifelong learning is a term that has strong international recognition, identifying a field of education that includes a cluster of traditional communities of practice, including adult, vocational, continuing, continuing professional, community and lifelong education. The field of lifelong learning compliments that of schooling in the number of educators and learners engaged within it, and in the resources that are committed to it. With the currently ageing population, and the increasing rate of workplace, social and cultural change, it is also an expanding field, especially in the areas of continuing professional, skills development for employability, vocational, adult (including elderly) education, workplace learning and human resource development.
2. Growing Importance of Vocational Education and Training

Skills development for the world of work, or Technical and Vocational Education and Training, has been identified by the international education and development community, such as UNESCO Member States, as a priority area within their range of programme activities.

This is to be expected since it has been estimated that, overall, about 80% of jobs world-wide require technical and vocational education knowledge and skills (Maclean and Wilson, 2009). There is also overwhelming evidence to demonstrate that TVET can play an essential role in promoting economic growth and the socio-economic development of countries, with benefits for individuals, their families, local communities and society in general. Improving education for the world of work can help improve the incomes of poverty stricken farmers and so help alleviate poverty, provide citizens with more choices in their lives, and help empower individuals who would otherwise be marginalized. TVET for the world of work also helps promote good citizenship. Furthermore, most work opportunities in the twenty-first century are likely to be centred on new processes and services that require specialized knowledge and skills not yet available in general education institutions. In least developed countries more effective TVET skills are especially needed to best cope with the demands of the informal sector.

All of these factors point to the growing importance of TVET for work and responsible citizenship in the contemporary world.

TVET has long been considered by UNESCO as a key area in education. For example, the report to UNESCO of the independent International Commission on Education for the Twenty-first Century (the Delors Report, Learning – the Treasure Within, 1996) identified ‘Learning to Do’ as one of the Four Pillars of Education; while the Dakar Framework for Action (2000), which has identified six key goals that need to be met if Education for All by 2015 is to be achieved, stresses the importance of life skills development for employability, for both youth and adults.

3. Some Key Trends in the Changing World of Work

Within the discipline of sociology there is an extensive and well developed literature on the sociology of work and occupations, called ‘occupational sociology’. The founding fathers in sociology, Karl Marx, Max Weber and Emile Durkheim, all paid particular attention to work, and to the importance of education for the world of work.

One of the important distinctions that traditionally occurs in any consideration of work, and education for the world of work, is that between work with a largely intellectual component, and work which is highly practical in nature, and requires the individual concerned to work ‘more with their hands than with their head’. Thus the traditional distinction between ‘white collar employment’, which generally means the professions and semi-professions, and work in offices, and ‘blue collar’ work, which involves technical and vocational skills in the various crafts and trades, in factories and the like.
The ways in which people have been traditionally prepared for the world of work has been affected by whether the work they undertake is mainly intellectual (i.e. White collar) or technical work involving the use of the hands (i.e. “manual” or Blue collar work).

One of the important repercussions of the current rapid rate of economic and social change, the increasing impact of the new information and communications technologies, and the era of globalisation, is that the distinction between academic work and technical work has become rather blurred. This blurring of the boundaries between ‘academic’ and ‘practical/technical’ work has had a major impact on the ways in which we educate youth and adults for the world of work. In recent years, technical and academic curricula have converged to mirror changes in the world of work.

Originally, the direct preparation for work was the main goal of technical and vocational education and training, and remains prominent in many developing nations. However, during the technological revolutions and innovations in science and technology, during the 20th century, new domains of knowledge and new disciplines have become important at all levels of education and training. The current focus is increasingly upon preparing knowledge workers to meet challenges posed during the transition from the Industrial Age to the Information Age, with its concomitant post-industrial human resource requirements and the changing world of work.

Technical and vocational education and training is currently faced with the challenges posed by the displacement of the traditionally-strong focus upon manual work in favour of mental work, or at least the changing mixture of competencies required in the workplace. The boundaries between manual and mental work are fading away, as many traditional forms of work, and the respective preparation processes for learning to work, undergo change.

Much has been written about the galloping pace of change in today’s society and the inability of educational systems to change fast enough and fundamentally enough to keep pace with this change. Many express concern that, while the enormous changes caused by information technology and by societal and behavioural shifts at various levels of society (family, community, nation) have transformed the way we travel, do business, spend leisure time, communicate, handle our finances, and care for our health, it has not changed the way we educate. Existing educational systems even in the wealthiest of countries have proven inadequate in servicing the poorest and most disenfranchised sectors of society on the one hand, and have not kept pace with the social, economic, and technical changes outside the academic world on the other. And in the poorer countries of Asia, Africa and Latin America, problems of inadequacy and access are staggering.

There is no lack of attempts to reform educational systems. But reform efforts have been largely concentrated on improving existing practice, on efficiency rather than effectiveness, and have aimed at modifying or improving the existing education paradigm, rather than coming up with a new paradigm. Thus, for example, curriculum reform focuses on how to improve and sequence the teaching of specific subject matter
blocks, rather than to question whether to teach that subject at all or replace it with new learning content.

An analogy regarding the enormous shift in transportation methods may be helpful by comparison. The need for faster transportation over long distances was not met by building a better and better car, but by finally inventing the airplane. Likewise, producing the written word was not improved by improving the typewriter, but by developing word processing in a desktop computer. In like manner, the task must now be, not the improvement of the education “car,” but the invention of the education “airplane.”

4. Changing Orientation of Technical and Vocational Education and Training

I will now turn my attention to examining ‘skills development’ with particular reference to employability, and will seek to answer the question: how does one re-fashion skills development and vocational education programs to address the types of issues referred to earlier?

I believe that success in this endeavour depends to a large extent on the thoroughness of the needs assessment that must precede the design of any vocational education program. In the same way that most successful business ventures are premised on a timely and perceptive reading of a specific need that can be met by a product or a service, so also a skills development program must correctly perceive what is needed. If both education and training are meant to meet specific learning needs, then their structures and processes have to be specific to the need of the particular set of learners that they address. Education for All does not mean the same Education for All. The life skills for employment and for citizenship obviously vary from set to set; industrial workers have specific learning needs that are different from that of agricultural communities. And it is not enough, for example, to determine that the community will need welders, or computer programmers. It is necessary to identify what kind of welders or programmers are needed, not just from the point of view of their welding or programming skills, but from the point of view of their quickness to learn new things, or to adapt to different circumstances, or to be dependable and reliable, ethical, and so on.

Put another way, the specific learning needs and their corresponding skill sets need to be comprehensively articulated. This is of course easier, and more obvious, to see and measure with regard to motor or physical skills: proficiency in welding, or in typewriting, or in bicycle repair. But it is more difficult, and apparently less clearly articulated, with regard to mental and social skills: soundness of analysis, teamwork, ability to learn, creative compromise, and so on. And yet in many contexts, even in the first level workforce, these latter skills are more of a determinant to productivity, success, and therefore employability.

I wish to emphasize that the importance of correctly identifying learning needs is to advocate for an education or training system that is demand driven rather than supply driven. When public schooling as we know it was developed, educators recognized that citizens needed to be empowered to communicate, both in oral and written form, to calculate, as each deals with the necessary quantitative dimensions of everyday life, to reason, to understand himself/herself, his/her community, and the wider world around, and to live productively and in harmony with others. These are nothing more or less than
the basic life skills the learner needs. These are skills needed not only for employment, or for citizenship, but also for life. A program of studies evolved to respond to this demand.

However, as the curricular content of formal school structures evolved, programs to develop these needed skills became compartmentalized and fossilized into academic subjects: reading, writing, arithmetic, social studies, science, vocational arts, technical crafts, etc. At the same time treatments of these subjects became standardized and largely universalized, leaving little room for diversity of approach or emphasis from community to community, even from country to country. By and large, the curricula of basic education became very similar, not across countries, but even across national boundaries.

Education was a body of information, a supply to be distributed or delivered. By implication, the emphasis shifted from the end to the means. The emphasis in grammar classes shifted from improving communication to diagramming a sentence; in algebra, it shifted from honing disciplined reasoning to solving equations with two unknowns; in history, from an appreciation of one’s roots to memorizing names and dates; in chemistry, from understanding how nature works to mastering the chemical table. To be sure diagramming, equations, names and dates, and chemical tables are useful and perhaps even necessary means to develop communication, reasoning, cultural identity, and appreciation for nature, and so there no suggestion that traditional subject matter be dropped or substituted altogether. However, it must be emphasized that subject matter are just the means to develop basic life skills, and not ends in themselves. This means that when specific settings or times arise when these skills can be better engendered and supported by means other than the traditional subjects and the way they are sequenced and presented, new paradigms should be allowed to flourish.

There is a need for a new paradigm in education which requires recasting educational content based on a full understanding of what current and emerging learning needs are. Testing this approach within the context of a typical school, one sees that at present the product (which is, the curriculum content), tends to be supply driven: that is, it is composed of discrete blocks of academic subjects, language, arithmetic, science, social science, etc. for which standard bodies of content and pedagogy exist, and for which teachers are prepared. If, on the other hand, curriculum design is demand driven, that is, shaped on the basis of the student’s learning needs, a fundamentally different curriculum may emerge. The marketplace lesson is this: that one buys only what one needs or one wants.

5. Skills Development for Employment and Employability

It is in the context of these larger perspectives that we need to look at skills development for employment.

At the outset, it is crucial (in the face of a fast changing workplace) to make a distinction between training for employment and training for employability, between a trained recruit for the workforce and a trainable recruit.
In the early days of the industrial era, it was realistic to provide a specific set of skills that an individual would need and use for much of a person’s working life, he/she would be certified upon leaving formal schooling as having the required skills to be an accountant or an engineer or electrician. An employer would generally be satisfied with the skill sets acquired and set the person to productive work immediately. Nowadays, the skills sets of jobs are changing so rapidly; and indeed, with altogether new types of jobs being created, employers are aware that formal schooling can no longer keep up with the changing demands of the workforce. In the four years it takes to produce a professional, the face and skill sets of that profession may have changed profoundly. Nowhere is this more graphically evident than through a comparison of the number and titles of academic degrees handed out by universities, and the number, titles and job descriptions of the positions vacant and sought in the classified advertisements of newspapers.

For this reason, employers are looking more and more for trainable recruits and less for trained recruits, who may be trained in the ways of the profession that have recently been superseded. A specific case in point: the Goldman and Sachs investment firm put out an advertisement in a developing country for investment managers; of the hundreds who applied, only eight were chosen, and only three of these had formal advanced education in business or finance. The determining skills sets sought were not those of accounting or mathematics, but of flexibility, quickness to learn (trainability), persuasive communication, and teamwork. Another example: Over several years now, the giant consumer product companies of Proctor and Gamble have consistently recruited outstanding bachelor’s degree students, rather than MBA’s or advanced degree holders in finance or marketing. Even in Ministries of Agriculture around the world, government often does not hesitate to hire those with no agricultural background, sometimes fearful that those with the background may have developed bad habits or have been trained in outdated agricultural practices. The underlying premise is not so much a lack of faith in graduate studies but a realization that the specific skill sets, procedures, and even value systems they require of their work force is something they (rather than universities or schools) are in a better position to engender and develop.

The implied framework is thus one where education provides more generic employability skills, whereas training (whether in-house, sub-contracted, or free standing—even if delivered by academic institutions) is for specific employment skills. This applies not just to “technical” or physical skills, but also to mental and social skills, as well as work-conducive dispositional or attitudinal sets (sometimes called, with some controversy, values).

Thus, as regards physical dexterity skills, basic education provides the generic employability skills of manual dexterity through various arts and crafts classes. Though the student will probably never have to make a woven blanket or construct a small table in real life, for example, the employer will find the manual dexterity a useful base upon which to base training for the specific job in the garment factory or the construction site. Similarly, education develops generic skills of logic and deduction through algebra, though the student will probably never have to solve an equation with two unknowns in real life. Still, the ability or make logical deductions are employability skills sought in most high-level jobs.
Obviously, these are not watertight compartments; educational institutions do provide some specific employment skills (e.g. computer literacy), and corporate training does provide generic skills whenever they feel formal education has not done so.

An analysis of the specific learning needs of the target group served (which involved identifying necessary employability and employment skills) should dictate the content, methodology, and even delivery mechanisms of the education/training program that should meet these needs. Some of these skills are best developed in the context of formal schooling, and others at the workplace. Some are developed over a long period of time; some are acquired in a matter of weeks or even days. Some have substantive theoretical underpinnings; others are strictly dexterity skills. It is therefore impossible to formulate a one-size-fits all recipe for shaping the education and training landscape that would suit everyone.

And in meeting learning needs in vast areas of the globe where there is not an advanced or complex level of employment skills required, one often finds education and training, employability skills development and employment skills development, integrated into a single delivery system. In fact, it is the experience of innumerable literacy programs worldwide that infusing an employability or productivity dimension into the literacy program is the best way to ensure motivation, sustainability, and effectiveness. Reading and writing and calculating for its own sake does wonders for self-esteem, but coupling the acquisition of these skills with immediate application of them for the concrete improvement of daily lives is far more effective.

But it is essential to remember that a person is not just a worker, but also a citizen, and so education must prepare the person not just for employment but also for citizenship and for all other aspects of his or her life, including the development his self-esteem, his leisure/recreation time, his health awareness, and his historical, aesthetic, ethical, and spiritual dimensions. The UNESCO Commission on Education for the 21st Century, chaired by Jacques Delors, has put it forcefully,

“Often, without realizing it, the world has a longing, often unexpressed, for an ideal and for values that we shall term ‘moral.’ It is thus education’s noble task to encourage each and every one, acting in accordance with their traditions and convictions and paying full respect to pluralism, to lift their minds and spirits to the plane of the universal and, in some measure, to transcend themselves. It is not exaggeration on the Commission’s part to say that the survival of humanity depends on it.”

Fortuitously, strengthening these other dimensions in the individual concretely strengthens the individual for both employment and citizenship. A well-rounded individual whose education has taken into account all dimensions of human development invariably becomes a better worker and a better citizen. Conversely, workers with identity problems, ethical problems, or emotional problems are ultimately non-productive and ultimately not employable; citizens who are morally, socio-culturally, and emotionally adrift disrupt harmonious societies and are at the forefront of disruptive, intolerant, or even violent activities.
6. Re-engineering Education for Change

In the light of the above, how does one configure an education and training mechanism for the total development of the individuals in a society for employability, for citizenship, and for life? How does one organize a seamless network of schools, workplace training centers, educational media, and other learning venues? How does one set up mechanisms to address different learning needs—for work, for leisure, for citizenship—for all members of a society regardless of age, formal schooling, location, or competence? How does one reconstitute a school into a veritable learning hub for the entire community?

Obviously, different societal contexts, and different scales and scopes of responsibility, will dictate different answers to the above questions. But these questions must be asked, and answered, if a relevant operational new education paradigm can emerge.

More than ever before, education is much more than schooling in the usual limited sense. Under the old paradigm the Minister of Education would concern himself/herself exclusively with the schooling system. But under this paradigm, Ministers of Education cannot just be Ministers of Schools, just as Ministers of Commerce or Trade cannot just be Ministers of Stores. Both ministers must concern themselves with the total policy environment within which the exchange of goods or of ideas, as the case may be, operates and can be fostered optimally and fairly, rather than controlled. The learning marketplace is no longer just schools, but all of society, and rightly and inevitably so, given the pace and nature of change in today’s world.

This implies an enormous change of perspective for the design and governance of this sub-system in society. There are implications that can be drawn from this approach regarding several issues, including governance vs. administration of schools, market responsiveness to current and projected learning needs, the role of the private sector and communities, recognition of non-credentialed competence, and so on.

With the recent proliferation of learning channels, new types of jobs, and oversupply of unemployed professionals in traditional fields, the specter of over-credentialized societies will sooner or later give way to valuing creativity, competence, reliability, and experience over diplomas. If learning needs are met and competencies are demonstrated, it will eventually matter little, whether the learning needs were met in degree courses, or on line, or in apprenticeship programs. Decades ago, Ronald Dore warned of the dangers of proliferating a credentialing system independent of actual needs and competencies. Ivan Illich, also several decades ago, bemoaned the institutionalization of knowledge-sharing into a rigid system and called for “deschooling society” and for the setting up of alternative need-driven venues for transacting this knowledge sharing. And what he prophetically visualized without the benefit of knowing about the current possibilities provided by the information technology revolution (and so he was originally regarded as a Utopian) is now technically, if not politically, within today’s computer-enhanced reach.
7. Training the TVET Trainers, including International Certification

The final point I wish to make concerns ‘training the trainers’ for TVET. It is widely agreed that the quality of any education system ultimately depends on the quality of the interaction and relationship that occurs between a learner or learners, and the teachers or trainers who are teaching them. Therefore, the improvement of ‘vocational skills development for employability’ will only be realized if there is an improvement in the quality, effectiveness and relevance of teaching. This is partly linked to improving the status of TVET, so that more well qualified people are attracted to work in this area.

With this in mind, the UNESCO-UNEVOC International Centre for Education (where until March 2009 I was Director) has been undertaking a major project on ‘Training the TVET Trainers’ in order to help improve the quality, relevance and effectiveness of instruction in the area of TVET.

This project is a joint initiative involving UNESCO-UNEVOC and the University of Bremen, in Germany, and in collaboration with the ILO, UNESCO Beijing and the National Commission for UNESCO in China. The project is based on the view that it is necessary to develop TVET-related occupations into fully fledged, high status occupations if TVET is to reach its full potential. In many countries throughout the world TVET suffers from a lack of status when compared to various other occupational groups such as the semi-professions (eg. nursing and school teaching) and the professions (eg. medicine, law and engineering). Despite the growing importance of TVET’s contribution to the economic development of countries, this lack of status is reflected by such matters as the lower levels of remuneration, and more limited career pathways, of those in TVET compared to other skilled occupations, and the continuing detrimental distinction between ‘blue collar’ and ‘white collar’ work (Viet Nam News, 2009). However, with globalisation, the increasing harnessing of technologies in the workplace, and expansion of the knowledge industry, such distinctions (which are highly prejudicial to those working in the area of TVET) are no longer appropriate or accurate.

It has therefore been decided to establish an international ‘training the trainers’ programme which addresses these types of problems, and seeks to establish an international standard and suitable benchmarks for TVET trainers.

The Chinese National Commission for UNESCO and the Chinese Ministry of Education strongly support the establishment of such a programme, with pilot work being undertaken in China before examining the possibility of up-scaling to other countries in Asia, and even world-wide. The Chinese authorities have over the past three years (2007-2010) hosted several international UNESCO-UNEVOC Experts Planning Meeting in China, to establish the basis for a long term project on setting standards and benchmarks for training the trainers for TVET. The ILO offices in Bangkok and Beijing are also involved with this project.
8. Conclusion

Let me conclude. I recognize that I have raised a number of issues that have far-reaching implications beyond skills development in the narrow sense. It is my hope that our deliberations on skills development within Lifelong Education for All and Education for Sustainable Development will accommodate the following points:

* A fundamentally changed, increasingly interdependent world demands new paradigms of education and training, recognizing that what to teach, how to teach, and whom one teaches have radically changed.

* Success in redesigning skills development programs will depend heavily on the thoroughness and care with which needs assessments are carried out and translated into program content and methodology.

* Therefore, there will be as many new forms and approaches to skills development as there are different learner sets in different social and work contexts.

* Development for employability must go beyond development for employment; preparation must not just be for specific employment skills, but for general employability, including motor, social, and intellectual skills.

* Skills development must encompass, in an integrated manner, preparation for employment, for citizenship, and for life.

* Addressing skills development and education for all demands the involvement of much more than just the formal education system; it must incorporate training in the workplace, in the communities, in families and organizations; it must include long term and short-term modalities, and opportunities available at every stage in life.

* The notion of lifelong learning is of fundamental importance if countries are to be successful in reengineering their education systems to accommodate the types of changes referred to in this presentation.

* The areas of TVET skills development for employability examined in this presentation impact heavily on poverty alleviation and sustainable development.

This international conference at Khon Kaen University provides an excellent opportunity to reflect on the goals of education in the Asia region, and in our own countries, and the effect of our efforts in achieving those goals.

So let me end on the same note as I began: ‘When the winds of change blow, some erect walls while others erect windmills’.

I certainly hope that we as a group meeting here today in Khon Kaen we do not try to shut out change because we are threatened by it, but that instead we help to fashion the change that occurs for the betterment of our communities and societies. The most productive way for us to proceed is to view change as an opportunity for betterment rather than as something to be feared and resisted.
Let us look forward—at the rapidly changing world and its emerging demands. As educators and researchers we can, and must, change just as rapidly, in appropriate ways.

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Sustainable Development in Education through Teacher Collaboration

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ABSTRACT

Increasingly, schools are addressing educational sustainability issues by supporting the integration of sustainability into the curriculum. It is not yet common, however, to examine human resource practices such as teacher collaboration from a sustainable perspective. With greater than ever scrutiny of learning and teaching activities by internal and external stakeholders, ensuring the quality of teaching and learning in order to sustain our students’ learning process, teacher collaboration plays an important role to make this happened. The paper discusses the need for teacher collaboration, how it function in education, what are the types, characteristics and benefits of teacher collaboration. In addition, this paper also relates the teacher collaboration with sustaining students’ learning such as teachers as a key in and for sustainable development and change agent based on their teaching strategies in the classroom. Finally, this paper also highlights the ways of practicing teacher collaboration at the school level.

INTRODUCTION

Education for sustainable development (ESD) aims to help students to develop the attitudes, skills and knowledge to make informed decisions for the benefit of themselves and others, now and in the future, and to act upon these decision. UNESCO as the lead agency of the United Nations Decade of Education for Sustainable Development (2005-2014), seeks to integrated the principles, values, and practices of sustainable development into all aspects of education and learning, in order to address the social, economic, cultural and environmental problems we face in the 21st century.

Groundwork has been laid for sustainability education worldwide. Recent changes in service learning, a focus on literacy and skills, standards that support interdisciplinary thinking, and the role of systemic thinking have all increased the visibility of the movement. While it is generally agreed on that sustainability education must be customized for individual learners, according to Tilbury and Wortman (2004), the following skills are essential to ESD such as critical thinking and reflection, systemic thinking, building partnership and participation in decision making.

Teacher collaboration can be as simple as two teachers informally discussing a student’s progress or as complex as long-term, regularly scheduled meetings, involving various school stakeholders, state standards, and research to overhaul curricula. One of the constants, however, when educators come together to collaborate is the intellectual effort

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they put forth to better themselves as a group to benefit their students. This process is one that has largely been taken for granted, however as school administrators and teachers feel the pressure of increased accountability more attention is being paid to this practice.

NEED FOR TEACHER COLLABORATION

Normally teachers are left to their own devices, struggling to solve their instructional and/or classroom management dilemmas. Their colleagues can be more like competitors and much of the work is done in private and without assistance. However Inger (1993) argued that those schools which foster substantial collegial relationships among teachers, and teacher collaboration produces significant benefits for students, teachers and school. Aside from the exceptional amount of teacher collegiality, there is nothing unique about these schools.

Sharing knowledge among colleagues also demonstrates a level of trust and faith in the mission of teaching that is imperative to accomplishing the goals of quality education. Teachers will develop a sense of belonging and worth in the group as they work to solve problems together. These connections enable teachers to see their value in the school network and promote their interest in working toward achievement of the desired outcomes (Bryk & Schneider, 2002). Collaboration can help alleviate problem of leaving the school because of low morale, according to Cohen (2002). As teachers at 16 schools in a study of 19 High-performing, High technology schools agreed that the collaborative nature of their staff is an important element of the school’s success (Sweet, 2004).

FUNCTION IN EDUCATION

For Students

Teachers who work closely together just as a good parenting practices not only presenting a united front to students but also promote shared ideas to their students. This camaraderie sends an unspoken message that the work being done is valued by the instructors, and should be therefore be respected by the students. As students sense this consistency behavior and achievement improve (Inger, 1993). Similarly as schools develop discipline plans that all teachers agree with, students understand that the policy is uniform and each teacher will respond in a similar manner. Again the consistency that this provides helps students understand the parameters in which to operate and alleviates guesswork with regard to behavior and expectations.

As teachers engage one another in debate and conversation about practice and what works and doesn’t work in given situations, of course each teacher’s knowledge base grows. For students the teacher’s expanding bank of information allows them access to the expertise of many teachers via their own instructor.

For Teachers

Collegiality breaks the isolation of the classroom and brings career rewards and daily satisfaction to the teachers (Inger, 1993). The teamwork that teachers can experience through continuing collaboration supports them in every aspect of teaching. For example,
new teachers can benefit from veteran teachers as they learn the intricacies of classroom management, professional responsibilities, managing parent contacts, curriculum pacing and the like. Similarly veteran teachers, through collaboration with new teachers will be able to learn new theory and technique, rekindle the joy of daily discovery, and become more reflective practitioners as they discuss various aspects of teaching with their new teachers.

Continuing collaboration will also assist when significant change is encountered within the school. While teacher turnover happens, new curriculum is adopted, and/or changes in building or district leadership and policies occur, those teachers who are already well-versed and steeped in collaboration recognize that these changes need not be faced alone. They will share with their willing colleagues and they are bolstered by their knowledge along the same journey.

Professional Learning Communities

The Profesional Learning Communities (PLC) framework advocated by Richard and Rebecca DuFour (2004), formalizes many of the processes and outcomes associated with teacher collaboration. The PLCs are built around the following three main ideas:

- Ensuring that students learn. There are three questions drive teacher collaboration in this aspect. What do we want each student to learn? How will we know when each student has learned it? How will we sustain the learning development of students especially those students experience difficulty in learning? Dealing with the third question is one of the cornerstones of PLC, because it moves intervention from the individual to the system. By aligning strategies for intervention across a school, a more consistent approach is taken to deal with struggling learners.

- A culture of collaboration. Despite attempts over the years to bring teachers together to collaborate on school-wide instructional issues, many institutions still struggle with this. The PLC framework is designed to provide specific strategies for collaboration, including the time and content of those collaboration opportunities.

- A focus in results. By defining goals together and agreeing on common measures of success, teachers can look at data and make appropriate decisions based on fact, and grounded in consistency.

TYPES OF COLLABORATION

There are two forms of teacher collaboration, namely conventional and technology aided. The conventional type which include peer mentoring or coaching and collaborative workshop whereas technology aided type comprise of E-mail contact, web mentors and chat or discussion boards. Collaboration can take many forms that enable teachers in a variety of circumstances to take advantage of proficient profesional know-how regardless of time and space constraints.
Conventional

Conventional collaboration mostly involves face-to-face meetings where the fundamental purposes are to support colleagues in their professional development and growth, facilitate mutual learning, and build a sense of community such as the peer/mentoring coaching process. As teachers come together to share concerns and questions they find comfort in the simple basis that they are not facing the similar problems alone. Likewise, there is another teacher who understands the struggling process and can truly celebrate those triumphs while a success is achieved.

Teachers are routinely evaluated by administrative personnel such as principals/headmasters and senior assistants who follow prescribed rubrics and standards. Peer mentoring often relates to practice and reflect on effectiveness. This allows the school to set goals that focus on specific aspects of teaching and instruction. Of course, mentors must be competent educators with experience that will benefit their protégés with regard to good teaching and classroom management practices, professional development, continuing education etc. For example, many teacher trainees in Malaysia are assigned a mentor with whom they have to meet with a specified amount of times while they are doing their practicum teaching in school. Peer mentoring or coaching is a lifeline for a teacher new to education field or to a new grade level or content area.

Another conventional way to promote teacher collaboration is through collaborative workshop. Collaborative workshop not only can teachers collaborate through mentoring or coaching programs but also teachers can attend workshops with peers that focus on specific aspects of teaching. In collaborative workshops the presenter acts as a facilitator to encourage groups to share their expertise regarding the topics at hand. They can also be peer led on-going programs where teachers are given assignments to bring examples of instructional strategies on specific topics to each session to share with their colleagues.

Technology Aided

Everything from references materials for students and teachers, textbook support sites, lesson plans, and teacher planning tools are available in the Internet. This medium has likewise advanced the art of collaboration. These on-line collaborative tools exist in many forms. For example teachers can make connection via the internet. Varies website are available that allow educators to find others who teach the same grade level or subject matter or share the same interests. A great advantage is that educators can connect with peers from around the world.

TEACHER COLLABORATION CHARACTERISTICS

Teacher collaboration is voluntary. Teachers may be required to work in close proximity, but they cannot be required to collaborate. They must make a personal choice to work collaboratively in such situations. Because collaboration is voluntary, not administratively mandated, teachers often form close, but informal collaborative partnerships with colleagues.
It is based on parity teachers who collaborate must believe that all individuals’ contributions are valued equally. The amount and nature of particular teachers’ contributions may vary greatly, but the teachers recognize that what they offer is integral to the collaborative effort.

It requires a shared goal. Teachers collaborate only when they share a goal. If they are working on poorly defined goals, they may be unintentionally working on different goals. When this happens, miscommunication and frustration often occur instead of collaboration.

It includes shared responsibility for key decisions. Although teachers may divide their labor when engaged in collaborative activities, each one is an equal partner in making the fundamental decisions about the activities they are understanding. This shared responsibility reinforces the sense of parity that exists among the teachers.

It includes shared accountability for outcomes. This characteristic follows directly from shared responsibility. That is, if teachers share key decisions, they must also share accountability for the results of their decisions, whether those results are positive or negative.

It is based on shared resources. Each teacher participating in a collaborative effort contributes some type of resource. This has the effect of increasing commitment and reinforcing each professional’s sense of parity. Resources may include time, expertise, space, equipment, or any other such assets.

It has emergent properties. Collaboration is based on belief in the value of shared decision making, trust, and respect among participants. However, while some degree of these elements is needed at the outset of collaborative activities, they do not have to be central characteristics of a new collaborative relationship. As teachers become more experienced with collaboration, their relationships will be characterized by the trust and respect that grow within successful collaborative relationships.

TEACHER COLLABORATION IN CURRENT SCHOOL PRACTICES

Many trends in schools are encouraging teacher collaboration. For example, peer coaching (Joyce & Shower, 1988) and interdisciplinary curriculum development (Brandt, 1991) are premised on teachers’ collaborative relationships, as are current trends in the design and delivery of professional development program (Barth, 1990). Many aspects of currently recommended school reforms call for greater collaboration among teachers (Goodlad, 1984). The trend toward school based decision making is also consonant with the recognition that collaboration is becoming an essential ingredient in successful schools. Smith and Scott (1990) have asserted that the collaborative school is easier to describe than define. Such a school, they suggest, is a composite of beliefs and practices characterized by the following elements:

- The belief, based on effective schools research, that the quality of education is largely determined by what happens at the school site.
The conviction, also supported by research findings, that instruction is most effective in a school environment characterized by norms of collegiality and continuous improvement.

The belief that teachers are professionals who should be given the responsibility for the instructional process and held accountable for its outcomes.

The use of a wide range of practices and structures that enable administrators and teachers to work together on school improvement.

The involvement of teachers in decisions that school goals and the means for achieving them.

Administrators often find that their discussions of collaboration focus on sharing authority with teachers and involving teachers in school decisions. While these are important aspects of school collaboration, it is teachers working together for the purpose of improving their teaching that distinguishes a truly collaborative school from a school that is simply managed in a democratic fashion.

Little (1982) found that more effective schools could be differentiated from less effective schools by the degree of teacher collegiality, or collaboration they practiced. She observed that collegiality is the existence of four specific behaviors.

First, teachers talk frequently, continuously, and concretely about the practice of teaching.

Second, they observe others’ teaching frequently and offer constructive feedback and critiques.

Third, they work together to plan, design, evaluate, and prepare instructional materials and curriculum.

Finally, they teach each other about the practice of teaching.

As Cook and Friend (1991) have noted, collaboration appears to be the unifying theme that will characterize many of the new developments in the successful schools of the 1990s.

Recognizing that collaboration refers to the professional working relationship among teachers establishes a fundamental understanding for leadership personnel who want to foster teacher collaboration. When creating structures that rely on collaboration, at least two sets of issues must be addressed.

The first concerns the quality and integrity of the intervention, activity, or program that is being executed collaboratively.

The second concerns the knowledge, skills, and readiness of teachers to work collaboratively.

TEACHERS: A KEY IN AND FOR SUSTAINABLE DEVELOPMENT

Development is a holistic process in which an individual systematically enhance his/her capacity to solve his/her own problems while promoting his/her cultural, social and economic well-being. Sustainable development occurs when this process is conducted in a manner that can be sustained over the long term. It is evident that teachers, particularly those in decision making positions in schools, have a fundamental role to play in determining whether development is sustainable. What is not necessarily that obvious is that every student, through his or her individual choices and actions, has a part to play in
this determination. In order to have development that is sustainable, all students need to function responsibly and with awareness.

It is usually stated students are the future. What can be easily overlooked is that they are also the present. Their actions now also contribute to the issue of whether sustainable development is being achieved. When a student feels emotionally secure and self-confident, learns to take full responsibility for his/her actions, respects self and others, trusts his/her own thinking and respects the opinions of others even when different from theirs, and fully respects individuals of different cultures, she or he is likely to behave in socially responsible ways. These socially responsible behaviors are essential to sustainable development. It is very difficult for a student to feel emotionally secure and self-confident if that student is subjected to constant invalidation or other forms of mistreatment whether at home or at school.

Teachers play a key role in the appropriate socialization of students for sustainable development. It is important that, irrespective of the academic subject matter for which a primary or secondary school teacher is responsible, the teacher’s major overall responsibility be seen as the moulding of socially and emotionally well-adjusted individuals. The teacher needs to assist the students to feel good about themselves; to be emotionally secure and self-confident, to respect themselves and others, and to take full responsibility for their actions.

However, it would be difficult for teachers to function in the nurturing and validating manner required for promoting such qualities in students in their charge, if they themselves do not feel good about themselves and possess these attributes. But it is not unlikely that when they themselves were young, either their own parents or teachers were aware of this important dimension of their respective roles.

TEACHER AS CHANGE AGENT

Teachers face many challenges. There is often the problem of overcrowded classrooms and students exhibiting disruptive behavior. One easy choice is for teacher merely to rely on her or his authority to maintain order through fear of sanctions. Another option is for the teacher to strive to create a validating nurturing classroom environment, in which every student is treated with complete respect even when that student is behaving inappropriately.

Teachers are powerful agents of change in the lives of students. Focusing on the moulding of well-adjusted person whatever the subject matter being taught not only benefits the students, it also makes the job of the teacher easier. There are factors within and outside of one’s control. One factor totally within the sphere of control of teachers is their attitude towards each student, even to the ones who give problems. Teachers who function in a nurturing validating way will reap great rewards in terms of class behavior and student receptivity.

Education for sustainable development has many facets. A critical one which has been treated is the importance of nurturing students in such a way that they would be predisposed to functioning in social responsible ways now and in the future when they
become adults. Although parents have a key role to play in this regard, teachers of primary and secondary school students have an equally important part to play in producing socially and emotionally healthy students. Empowering teachers with emotional coping skills and teacher collaboration is one mechanism for equipping teachers to effectively perform this key task.

**TEACHING STRATEGIES IN THE CLASSROOM**

Given that the reorienting of curriculum to address the needs of sustainable development is key to arming students with the proper knowledge, skills, perspectives and values to pursue lifestyles in a sustainable manner, teacher is encouraged to use the creative arts to design class projects that provide user friendly and hands-on access to relevant subject matter that address ESD goals.

To the fullest extent possible, arrangements should be made for students to go out in the field to observe what they have learned in the classroom. This is important because these kinds of outing expose them to a real world perspective on the classroom subject, and provide an easily grasped context for their responsibilities as it pertains to sustaining the environment.

Participating in public presentations allows students to interact, share their thoughts, showcase their abilities, and foster awareness and education of teachers and peers in the larger community. Since one important emphasis of creative arts teaching methods is on deeper learning through participation, the final presentation needs to be part of the learning process, with the students sharing and being proud of what they have accomplished.

**THE BENEFITS OF TEACHER COLLABORATION**

Although the results from studies are not uniformly good, teachers who have worked together see substantial improvements in student achievement, behavior, and attitude. In schools where teachers work collaboratively, students can sense the program coherence and a consistency of expectations, which may explain the improved behavior and achievement.

Over time, teachers who work closely together on matters of curriculum and instruction find themselves better equipped for classroom work. They take considerable satisfaction from professional relationships that withstand differences in viewpoints and occasional conflict. Teacher collegiality avoids the sink-or-swim, trial-and-error mode that new teachers usually face. It brings experienced and new teachers closer together to reinforce the competence and confidence of the new teachers.

The complexities introduced by a new curriculum or by the need to refine an existing curriculum are challenging. Teacher teamwork makes these complex tasks more manageable, stimulates new ideas, and promotes coherence in a school’s curriculum and instruction. Together, teachers have the organizational skills and resources to attempt innovations that would exhaust the energy, skill, or resources of an individual teacher.
The conclusions that one draws from the experiences of closely orchestrated, task-oriented groups in schools are consistent with conclusions drawn from other studies of organization: The accomplishments of a proficient and well-organized groups are widely considered to be greater than the accomplishments of isolated individuals (Little, 1987, p.496).

Thus, schools benefit from teacher collaboration in several ways:

- Through formal and informal training sessions, study groups, and conversations about teaching, teachers and administrators get the opportunity to get smarter together.
- Teachers are better prepared to support one another’s strengths and accommodate weaknesses. Working together, they reduce their individual planning time while greatly increasing the available pool of ideas and materials.
- Schools become better prepared and organized to examine new ideas, methods, and materials. The school becomes adaptable and self-reliant.
- Teachers are organized to ease the strain of staff turnover, both by providing systematic professional assistance to new teachers and by explicitly socializing all newcomers, including veteran teachers, to staff values, traditions, and resources.

TEACHER COLLABORATION: WHAT SUSTAINS EDUCATION?

Support for teacher collegiality and collaboration has six dimensions which will be able to promote collaboration and thus sustain education development.

- Symbolic endorsements and rewards that place value on cooperative work. The schools where teachers work together best are those in which the principal and other leaders convey their faith in the power of interdisciplinary terms to make the school better for students. Vague slogans in favor of collaboration are ineffective; the principal and other leaders must spell out in some detail what they think collaboration means.
- School-level organization of assignments and leadership. School-level reorganization into teams stimulates cooperative work, but does not guarantee it. For such teams to be effective in encouraging cooperative work, leadership must be broadly distributed among teachers and administrators. For example, in some schools, teachers are given reduced teaching loads in exchange for leading curriculum development work.
- Latitude given to teachers for influence on crucial matters of curriculum and instruction. Teachers’ investment in team planning appears to rest heavily on the latitude they have to make decisions in crucial areas of curriculum, material selection, student assignments, instructional grouping, and the assessment of student progress. Teaming for the sake of teaming leads to disillusionment; teaming must be about matters of compelling importance.
- Time. Common planning periods, regularly scheduled team or subject-area meetings, and released time for collaborative work all support cooperative work among teachers. The opportunities for collaborative work are either enhanced or eroded by the master schedule.
- Training and assistance. Since it is a radical departure from the usual, cooperative work places unfamiliar and pressing demands on teachers. Teacher work groups succeed in part by mastering specific skills and by developing explicit agreements
to govern their work together. Task-related training and assistance bolster the confidence of teachers to work with one another outside the classroom.

- Material support. The quality and availability of reference texts and other materials, adequate copying equipment, consultants on selected problems, and other forms of human and material support appear to be crucial contributors to teachers’ ability and willingness to work together successfully.

SUMMARY AND CONCLUSION

Serious collaboration, teachers engaging in the rigorous mutual examination of teaching and learning, is rare, and where it exists, it is fragile. Yet it can and does occur, and the enthusiasm of teachers about their collaborations is persuasive. When schools are organized to support it, the advantages of collegial action are varied and substantial. When teachers work as colleagues, it produces greater coherence and integration to the daily work of teaching. Further, it equips individual teachers, groups of teachers, and their schools for steady improvement. In short, it helps to organize the school as an environment for learning to teach.

Two fundamental conditions appear to be crucial to joint action among teachers: interdependence and opportunity. The key practices of colleagues are most likely to make a difference where they are an integral, inescapable part of day-to-day work. Teachers’ main motivation and reward for involvement with one another will be found in the work of teaching. To the extent they find themselves truly interdependence with one another to manage and reap the rewards of teaching, joint work will be worth the investment of time and other resources. To the extent that teachers’ success and satisfaction can be achieved independently, the motivation to collaborate is weakened.

Joint action cannot occur where it is impossible or prohibitively costly in organizational, political, or personnel terms. Schedules, staff assignments, and access to resources must be made conducive to shared work. If teachers are to work often and fruitfully as colleagues, school policy must solidly support it. The value that is placed on shared work must be both said and demonstrated. The opportunity for it must be prominent in the schedule. The purpose for it must be compelling and the task sufficiently challenging. The material resources and human assistance must be adequate. The accomplishments of individuals and groups must be recognized.

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Sustainable ICT Education Using a Student's Own PC

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\begin{abstract}
In a university education, the use of ICT (Information and Communication Technology) is indispensable. Computing environments are demanded in a lot of classes so that the ICT education leads not only improvements in computer literacy but also the use of an e-Learning system and to an interactive education. To keep information security, certain management of a PC (Personal Computer) is demanded. The education for that is indispensable. As a method for correspondence to these demands, ICT education using a student’s own PC has been performed. The speaker performed computer literacy education using the PC and has experience of establishment of support system and the model selection of the PC for the education. In this talk, the problems of the education are clarified, and the solution by USB (Universal Serial Bus) memory computing is proposed. USB memory computing is composed of free software based on LINUX. Therefore, not only the operating system but also the word processor, the spreadsheet and the presentation software can be used free of charge. Additionally, it is possible to use it in old PC. It means a sustainable computer education and is feasible in a lot of regions. Finally, IPS (Intrusion Prevention System) for the education based on MS Windows that the author is developing is introduced.
\end{abstract}

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From Teaching-to-Know to Learning-to-Think for Sustainability; What Should It Take? … and How to Do It?

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ABSTRACT

Given the current striving for sustainability and the corresponding paradigms shift in science, technology, R&D, environment perception, economy and politics; e.g., from unlimited growth-to-sustainable development, correction-to-prevention and passive consumption of “goods”, culture and education – to active participation, primarily in the science-technology-environment-society-economy-policy (S-T-E-S-E-P) context, the corresponding paradigms shift, at all levels of education is unavoidable. This requires a paradigm shift in conceptualization, thinking, and research in science education, particularly concerning the science-technology-environment-society (STES) interfaces. Consequently, ‘STES literacy’ requires the development of students’ evaluative system thinking and transfer capabilities in this context via the corresponding innovative higher-order cognitive skills (HOCS)-promoting teaching assessment and learning strategies. In the contemporary educational context, it means a shift, within different multicultural contexts, from the currently dominating lower-order cognitive skills (LOCS) algorithmic teaching-to-know, to HOCS-promoting learning-to-think, typified by students’ capabilities of critical evaluative system thinking and decision-making for problem solving and transfer. This implies a paradigm shift in conceptualization, thinking, research and education, to be consonant with innovative, interdisciplinary generic, contextually bound, research-based teaching strategies assessment methodologies and, in accord, sustainable action leading to ‘HOCS learning”. What should it take and, not less important, ‘how to DO it” – will be critically discussed and exemplified via successfully applied HOCS-promoting science teaching and assessment strategies. Our longitudinal related research findings and longitudinal application of this HOCS-promoting science education practice suggest that, although the road to STES literacy for sustainability is rocky, it is nevertheless, educationally, feasible and, therefore, attainable.

Rationale, Conceptualization, Purpose and Objectives

Given the current striving for sustainability and the corresponding paradigms shift in science, technology, R&D, environment perception, economy and politics; e.g., from unlimited growth-to-sustainable development, correction-to-prevention and passive

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consumption of “goods”, culture and education-to-active participation, primarily in the science-technology-environment-society-economy-policy (S-T-E-S-E-P) context, the corresponding paradigms shift, at all levels of education is unavoidable. This requires a paradigm shift in conceptual-ization, thinking, and research in science education, particularly concerning the science-technology-environment-society (STES) interfaces. Consequently, ‘STES literacy’ requires the development of students’ evaluative system thinking, and decision making transfer capabilities in this context, via the corresponding higher-order cognitive skills (HOCS)-promoting teaching, assessment and learning strategies (Zoller, 1993, 2000; Zoller & Levi Nahum, 2009/10; Zoller & Scholz, 2004). This means a shift, within different multicultural contexts, from the currently dominating lower-order cognitive skills (LOCS) algorithmic teaching-to-know, to HOCS-promoting learning-to-think, typified by students’ capabilities of critical evaluative system thinking and decision-making for problem solving and transfer. The HOCS approach to teaching and learning constitutes a comprehensive educational “world outlook” which has been and continues to be research-based implemented in different settings and modifications, at all levels of education, world-wide. The HOCS conceptual model is presented in Figure 1 (Zoller and Levi-Nahum, 2009/10).

![Figure 1: The guiding conceptual model of HOCS in the context of science education](image-url)
Such a paradigm shift in conceptualization, thinking, research and education, needs to be consonant with innovative, interdisciplinary generic, contextually bound, research-based teaching strategies assessment methodologies and, in accord, sustainable action – leading to ‘HOCS learning’.

There is an ever-increasing gap between the reality of modern society which is based on science, technology, economy, and advanced, sophisticated networked systems and capabilities and the response of the educational systems, worldwide, to this reality. The educational systems are perceived by students, teachers, parents, society, economical, political and educational systems, as an instructional framework the objective of which is to advance pupils/students up the class ladder, based on their high scored passing of disciplinary, algorithmic knowledge tests. “Excelling” is thus measured and perceived according to the “grade achievement” as the exclusive criteria.

The current striving for sustainability and the corresponding paradigms shift in almost every aspect within the STESEP context, results in paradigms shifts, at all levels of education, as presented in Table 1 (Zoller, 2009; Zoller & Scholz, 2004).

Table 1. Selected paradigms shifts in contemporary research and STESEP-oriented science education

<table>
<thead>
<tr>
<th>From:</th>
<th>To:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technological, economical, and social growth at all cost…</td>
<td>Sustainable development</td>
</tr>
<tr>
<td>Reductionism; i.e., dealing with in-vitro isolated, highly controlled, components</td>
<td>Uncontrolled, in-vivo complex systems</td>
</tr>
<tr>
<td>Disciplinarity</td>
<td>Problem-solving oriented, systemic inter-/cross-/transdisciplinarity</td>
</tr>
<tr>
<td>Technological feasibility</td>
<td>Economical-societal feasibility</td>
</tr>
<tr>
<td>Scientific inquiry (per se)</td>
<td>Socially accountable, responsible and environmentally sound R &amp; D “HOCS Learning”</td>
</tr>
<tr>
<td>Algorithmic lower-order cognitive skills (LOCS) teaching</td>
<td>System/lateral thinking</td>
</tr>
<tr>
<td>“Reductionist” thinking</td>
<td>Interdisciplinary teaching</td>
</tr>
<tr>
<td>Disciplinary teaching (physics, chemistry, biology, etc.)</td>
<td>Student-centered, real world, project/research-oriented team learning</td>
</tr>
<tr>
<td>Teacher-centered, authoritative, frontal instruction</td>
<td></td>
</tr>
</tbody>
</table>

In the contemporary educational contexts, it implies a paradigms shift in conceptualization, thinking, and research in the context of science education which includes, among others, novel teaching strategies, assessment methodologies and learning strategies, purposed at the development of students’ HOCS; among them the capabilities
of Evaluative Thinking and Decision Making (Zoller, 1993; Tsiparlis & Zoller, 2003; Zoller & Pushin, 2007; Zoller et al., 2010).

Such a state of affairs mandates an alternative educational practice, in order to prepare students for a high level of personal and societal performance as motivated citizens inclined to learn and inquire; being active and involved, having the HOCS capabilities of question-asking, evaluative thinking, decision making, problem solving and, most important, taking responsibility for the consequent action and behavior (Zoller, 1993, 1994, 1999, 2000).

In parallel, the overwhelming agreement, worldwide, on the need for a fast transformation in all our life domains, from unlimited development and growth to sustainable development with all the implications involved requires, in accord, paradigms shifts (Table 1), not only in research and scientific, technological-engineering, economical, social, cultural and political practice, but even more so, in purposed education for sustainability and its attainment in all domains of life and human activity within a global web of complex systems, interrelationships and implications in the STES context (Zoller & Scholz, 2004).

The essence of this research- and multi-dimensional educational experience-based paper constitutes an alternative to the existing “traditional” science education practice, aiming at sustainability and excellence for all; namely, no more “preparing” students for effective performance, as citizens, in modern societies by imparting disciplinary knowledge via ‘test wiseness’-oriented LOCS level algorithmic instruction, as the dominant component in the educational system. Rather, the fostering of transfer-oriented HOCS learning’ as the “king’s road” for empowering students toward rational, effective, excellence and responsible active participation in whatever role they might play in society. In short: the development of the students’ capability of purposed rational-reflective thinking, pre-decision making on what to accept or reject, do or not to do and in what way, and taking a responsible action accordingly; a socially creative and scientifically literate person, having the appetite, readiness and motivation to think, learn, inquire and grow – to compete with him/herself and having the capacity to collaborate with her/his peers (Zoller, 1990, 1993, 2000). Therefore, the nurturing of excellence for all in a broad spectrum of fields and contexts is envisioned as a vital overriding goal in the educational system.
Objectives, Goal and Related Research Questions

Guided by our ‘first approximation’ conceptual model (Figure 1) our educational objectives in science education are as follows:

1. To promote, in science education, the development of evaluative critical system thinking, decision making (Levi Nahum et al., 2010), problem solving and transfer.

2. To teach science for acquiring new type of flexible contextually relevant, adaptive knowledge that facilitates one to cope with the complexity and fragility of multidimensional global socio-economic-technological-environmental-political systems via inter- and trans-disciplinarity in research and science education and in accord assessment methodologies for sustainable action. The Goal: The “STES Problem Solving – Decision Making Act” (Zoller, 1990; Zoller & Levy Nahum, 2009/10); namely,

1. Ability to look at the problem and its implications, and recognize it as a problem.
2. Understand the factual core of knowledge and concepts involved.
3. Appreciate the significance and meaning of various alternative possible solutions (resolutions)
4. Exercise the problem-solving act:
   - Recognize/select the relevant data information;
   - Analyze it for its reasonableness, reliability and validity;
   - Devise/plan appropriate procedures/strategies for future dealing with the problem(s).
5. Apply value judgments (and be prepared to defend!)
6. Entertain the DM act:
   - Make a rational choice between available alternatives, or generate new options;
   - Make a decision (or take a position).
7. Act according to the decision made.
8. Take responsibility.

Our aims in our related longitudinal active research were: (a) contributing to the body of knowledge on these HOCS; and (b) fostering the shift from algorithmic teaching and assessment to a higher level of cognitive, deep learning. Accordingly, our research aimed at obtaining research-based answers to the following questions:

1. Does traditional science instruction lead to gains in students’ HOCS capabilities? (e.g., Evaluative thinking (ET), system thinking (ST), and decision making (DM).
2. What are the science students’ views concerning their capability of resolving HOCS-requiring problems?

3. What can be learned from students’ responses to HOCS-requiring problems, to be used for promoting their generic or disciplinary HOCS capabilities?

Selected Relevant Research Findings

Our longitudinal pre/post-based designed research program, within which specially designed questionnaires, relevant to the students’ HOCS capabilities studied – were developed, validated and applied. Students’ responses were, qualitatively ordinally categorized using a 3-level scale of 0, LOCS-1 and HOCS-2, followed by the relevant statistics. The essence of the results/findings of four such studies are given in tables 1-4 below.

1. Evaluative Thinking

Table 1: Overall frequencies (%) by LOCS/HOCS levels of secondary school science students' responses (total of 5910) by the two sectors (Levy Nahum et al. [submitted])

<table>
<thead>
<tr>
<th>Cognitive Level</th>
<th>Scoring</th>
<th>Jewish sector (n=2625)</th>
<th>Arab sector (n=3285)</th>
<th>$\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>No response or irrelevant response</td>
<td>0</td>
<td>18.6%</td>
<td>12.36 %</td>
<td>44.6*</td>
</tr>
<tr>
<td>LOCS-level response</td>
<td>1 point</td>
<td>30.1%</td>
<td>73.58%</td>
<td>1111.5*</td>
</tr>
<tr>
<td>HOCS-level response</td>
<td>2 points</td>
<td>51.3%</td>
<td>14.06%</td>
<td>951.5*</td>
</tr>
</tbody>
</table>

* p< 0.0001

2. System Thinking

Table 2: Means and standard deviation in pre and post ST questionnaire of environment and science classes in both schools (Kurtam, 2009)

<table>
<thead>
<tr>
<th>Questionnaire</th>
<th>Trend</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>T value</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST(pre)</td>
<td>Environmental</td>
<td>43</td>
<td>12.35</td>
<td>2.77</td>
<td>-3.82</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Study Science</td>
<td>50</td>
<td>14.86</td>
<td>3.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST(post)</td>
<td>Environmental</td>
<td>46</td>
<td>16.74</td>
<td>3.12</td>
<td>-0.94</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>Study Science</td>
<td>49</td>
<td>17.75</td>
<td>3.19</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
HOCS capabilities are enhanced via (a) Tandem implementation of ‘HOCS promoting’ teaching strategies and assessment methodologies; (b) Such an enhancement requires time; it is not achievable via a single-shot short exercise; (c) The assessment needs not only to be consistent with the science teaching objectives, but also capable of their promotion. HOCS-promoting instruction and implementation of the corresponding HOCS-level assessment is attainable, and suggests that HOCS development is contextually- but not disciplinary content-bound. Thus, HOCS enhancement not only can be done; it should be done! The issue is –

**How to Do It?**

There exist quite many research and practice-evident ways to go ‘in line’ with the ‘teaching-to-know – to learning-to-think’ for SUSTAINABILITY. Most of them are HOCS-promoting teaching strategies and, in accord, examinations types and assessment methodologies (Zoller, 1994). Selected examples (many of them have already been published) of these strategies and methodologies, in the contexts of secondary and (undergraduate) tertiary levels, will be presented, critically discussed and a variety of options and variations of their application(s) in science teaching and assessment, in different multicultural contexts and societies, will be proposed. Thus, the ‘translation’ of research results and successful science teaching and assessment for sustainability into action, in science education, is not only doable, but it should be done purposely and persistently.

### Table 3. Students’ (N=47) views of HOCS-type problems (Ben Chaim, et al., 2007)

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>In my opinion, solving this problem is within the capability of a beginning science major freshmen.</td>
<td>2.94</td>
<td>0.71</td>
</tr>
<tr>
<td>I have full confidence in my response.</td>
<td>2.38</td>
<td>0.67</td>
</tr>
</tbody>
</table>

### Table 4. Participants’ distribution (%) by LOCS/HOCS level of questions asked and the related scoring points (Item-1)

<table>
<thead>
<tr>
<th>Questions level</th>
<th>Group-T (N=105)</th>
<th>Group-4 (N=26)</th>
<th>Chi-square test</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCS</td>
<td>51.38</td>
<td>27.14</td>
<td>DF = 1</td>
</tr>
<tr>
<td>HOCS</td>
<td>48.62</td>
<td>72.86</td>
<td>value = 12.96 P &lt; 0.0003</td>
</tr>
</tbody>
</table>

| Scoring Points | 1 or 2 points | 3 or 4 points | 5 or 6 points | 15 | 56 | 29 | 8 | 20 | 72 | DF = 2 | Chi-square value = 15.87 P < 0.0004 |
References


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Faculty of Education Khon Kean University, Thailand.
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Oral Presentations
The Results of Using Group Process Techniques to develop Youth Counselors’ Potential

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ABSTRACT

This research was a quasi-experimental research which aims at: 1) to study the effects of using group process techniques to develop Youth Counselors’ Potential and 2) to compare the Youth Counselors’ Potential scores of students who participated in group process techniques to develop Youth Counselors’ potential program and the students those who don’t participate in. The target group is consisted of 24 lower secondary education students. The students were separated into experimental and control group, 12 students in each. The experimental group participated in the group process techniques to develop Youth Counselors’ potential program three sessions a week. Each session takes about 1 to 1½ hour. This group must go through 15 sessions. After the experimental group participated in group process techniques to develop Youth Counselors’ potential program, the research was supervised 2 times and follow-up 2 times. The instrumental references used in this study were: Youth Counselors’ potential test with reliability coefficient 0.86 and, group process techniques to develop Youth Counselors’ Potential program. The collected data were analyzed by The Wilcoxon Match Paired Signed-Rank Test and The Mann-Whitney U Test. The experiment showed that post-test, the experimental group had higher Youth Counselors’ Potential scores than pre-test. Moreover, they had higher scores than those from the control group at .05 significant level.

Keywords: Youth Counselor, Group Process Techniques

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Introduction

The Education National Legislation 1999 has the main point to improve the quality of life by educative administration development for being excellent learners - good person, smart and happy. The 6th article specifies that “the educative administration must develop Thai people to be perfect human being, both of body and mind, intelligence, knowledge, virtue, morality and culture; to live with the others happily (Education National Committee, 2002). This reveals that learners’ ability is very significant. The Guidance subject is an education course that develops the latency of student to have quality in both of body and mind, and can make them live with the others happily. But nowadays, economic and social change affect daily life of people directly and indirectly. The social problems are more serious, including others problem likes; lavish, imitation, spreading of addictive substance, crime, abortion, suicide, etc. (Department of Curriculum and Instruction Development, 2002). Data from Bangkok Researching Center, Research Institute of Bangkok University takes a random from those 15-22 years who live in Bangkok and big provinces in each part of the country, for example; Chiangmai, Ubonratchathani, Chanthaburi and Songkhla, between date 9 - 17 November, 2004 (N=1,850) 44.1 of man 55.9 of woman. They found that when this group has sorrow or unhappiness, a friend is the first supporter of teen-age 30.9%, next are parents, oneself, relatives and teachers (Suneesa Vichai, 2009) which indicate that friend has a very important role to the youth.

Then, the researchers have an interest developing the youth to be a friend adviser in the school; it means a student who has to train special skills for performs beneath a role of assistance aims to the others in the same age and can exchange experience popularity. The limitation of work for friend adviser must be not any severe problem. Consultation giving can also improve the relation between friends as well because of the similar opinion and experience which correspond to Douglas who told that in group of adolescences, the opinion of their friend is more significant than the opinion or suggestion from the adults, relatives or even their teacher. It does not mean that they have negative attitude to the adult, but it is their feeling when they get any suggestion from higher person that make them being like children.

Thus, the researchers study programs to develop friend adviser with group activity technique in the way of life skill, in order to solve the problems which can occur in the future and for receiving the correct knowledge or suggestion and can be a good consultant for their friends who have the problems or feel unhappy.
Objective

1. To study the effects of using group process techniques to develop Youth Counselors’ potential.

2. To compare the Youth Counselors’ potential scores of students who participate in group process techniques to develop Youth Counselors’ potential program and those who did not participate in.

3. To follow-up Youth Counselors’ potential after the experimental.

Limitations

1. The target group
The target group is consisted of 24 lower secondary education students of Nongkrung School, Sira, Muang District, Khon Kaen Province, who volunteered to participate in the experiment during the first semester of the 2010 school year.

2. Variable
Independent Variable is group Process Techniques to develop Youth Counselors’ Potential.

Dependent Variable is Youth Counselors’ Potential.

Definition

1. Youth Counselors’ potential means knowledge and counseling skills consisted of life skills and counseling skill. Life skills consisted of self awareness skill, coping emotional skill, making a decision skill, denying skill. The researchers develop from Khwanyeun Mulesri (2005). The counseling skill consisted of the counseling knowledge and the ability in using counseling skills.

2. Group process techniques to develop Youth Counselors’ Potential means module of practice counseling knowledge and ability of Youth Counselor the follow as; 1) Youth Counselors’ potential divided 4 points (1) Self Awareness (2) Coping Emotional (3) Decision Skill (4) Denying skill (2) The ability in using counseling skills.

3. Youth Counselor means the student volunteers is consisted of 24 lower secondary education students of Nongkrung School, Sira, Muang District, Khon Kaen Province, who volunteered to participate in the experiment during the first semester of the 2010 school year.
Methods

This research was a quasi-experimental research which aims at: 1) to study the effects of using group process techniques to develop Youth Counselors’ Potential, and 2) to compare the Youth Counselors’ Potential scores of students who participated in group process techniques to develop Youth Counselors’ potential program and the students those who don’t participate in. This research was a Nonrandomized control group pretest posttest design (Phuang Taweerat, 1997)

\[
\begin{array}{ccc}
E & T_1 & X & T_2 \\
C & T_1 & \sim X & T_2
\end{array}
\]

The symbols as follows;
- E means experimental group
- C means control group
- T₁ means pretest
- T₂ means posttest
- X means the Group Process Techniques to develop Youth Counselors’ Potential.
- \(\sim X\) means teaching in classroom

Target group

The target group is consisted of 24 lower secondary education students of Nongkrung School, Sira, Muang District, Khon Kaen Province, who volunteered to participate in the experiment during the first semester of the 2010 school year. The students were separated into experimental and control group 12 students each. Each selected volunteer must have these following qualities:

1) Have some public-mindedness, sincerity, and strong will intent on helping others.
2) Be patient and calm.
3) Be friendly and optimistic.
4) Be a good listener.

6.1.1 The experimental group participated in group process techniques to develop Youth Counselors’ potential program.

6.1.2 The control group didn’t participate in group process techniques to develop Youth Counselors’ potential program.
The instrumental of research

The instrumental references used in this study were:

1. Youth Counselors' potential Test. The structure of Youth Counselors' potential Test consisted of 4 life skills: Self Awareness, Coping Emotional skill, Making a decision skill and Denying skill. Moreover, the Counseling Skills consisted of the counseling knowledge and the ability in using counseling skills; Listening skills, Questions skills, Paraphrasing skills, Summarizing skills, Reflecting skills and Pointing outcome skills. Analyze IOC (Item-Objective Congruence) of Youth Counselors’ Potential Test and to analyze Coefficient Alpha of Youth Counselors’ Potential Test with reliability coefficient 0.86.

2. Interview form to evaluate Youth Counselor Potential.

3. Group process techniques to develop Youth Counselors’ Potential program.

The data collection

This research was divided as a follows;

1. The pretest of the experimental groups and control group by Youth Counselors’ potential Test.

2. The experimental by using Group Process Techniques to Develop Youth Counselors’ Potential program. The experimental had 15 sessions. Each session takes about one to one and a half hour.

3. The posttest of experimental group and control group by Youth Counselors’ potential Test.

4. After attending these 15 sessions, the twelve volunteers still have to attend two supervising sessions and two follow-ups in an alternative order. The first follow-up comes before the first supervising session, and then comes the second follow-up and the second supervising session. Each session has different significances:

   The first follow-up’s objective is to collect the details in order to evaluate the volunteers’ ability as a peer counselors. Each volunteer will be assigned one student “patient” or counselee.

   The first supervising session is the time when the volunteers will receive the feedback from his or her first job as a Youth Counselor. The volunteers will also get some advices from the researcher in order to improve their performance in their upcoming individual peer counseling sessions.

   The second follow-up’s objective is to collect the details from the volunteers’ second individual session in order to evaluate the volunteers’ ability as a Youth Counselors.

   The collected detail from the second follow-up will be discussed in the second supervising session. The volunteers will receive the feedback from his or her second job as a peer counselor. The volunteers will also get some advices from the researcher in order to improve their potential as a Youth Counselor.
The analyze of data
The collected data were analyzed by the Wilcoxon Match Paired Signed-Rank Test and the Mann-Whitney U Test.

Results and discussion
The research findings found that for the post-test the experimental group had higher scores of Youth Counselors’ Potential than the pretest because they trained by using Group Process Techniques to develop Youth Counselors’ Potential. They had shared their experiences to their group so they have motivated for application to situation in their daily life. Moreover, the knowledge of aspect 4 life skills; self awareness skill, coping emotional skill, making a decision skill and denying skill is the essential of Youth Counselor to help other people because their was developed for understand themselves, using practical communication, solving problems, decision and deny. After the 4 follow-ups, Youth counselor still be good counselor to help another friends patient or counselee.

References


Experience of International Program in Pharmacy Education

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ABSTRACT

Introduction: The Faculty of Pharmaceutical Sciences established an English program (EP) for the five year Bachelor of Pharmacy program in 2004 in parallel with the Bachelor program taught in Thai (TP). In 2009, when the Faculty of Pharmaceutical Sciences switched from a five year (BPharm) to a six year (PharmD) curriculum, the EP was also revised and changed to the International Program (IP) with an increase in global concepts.

Objectives: (1) To evaluate the learning outcomes of the first and second batches of the EP graduates and (2) survey opinions of students enrolled in the IP in 2009 and 2010.

Methods: The current employment data of recent graduates were collected by staff and student feedback; Pharmacist Licensure Exam results were obtained from the Pharmacy Council. The opinion survey was carried out with a questionnaire for the first and second year IP students.

Results and Discussion: The outcomes of the first and second batches of students who graduated from the EP were analyzed including overseas practice training, current employment, Licensure Exam results, etc. The overseas practice training at hospitals and community pharmacies were highly rated by both preceptors and students. The survey for the IP students indicated that almost all students were proud of being a student of the program, but requested a more international environment. These analyses and evaluations will be used for improvement of the curriculum. Learning and teaching professional subjects in a second language is a significant barrier to the students and teaching staff since most of them are Thai. Teaching staff must overcome this issue.

Keywords: International Program, Pharmacy, Program management, Evaluation
Introduction

The Faculty of Pharmaceutical Sciences was established in December 1980 at Khon Kaen University, a center of education in the region. The Faculty established an English program in the five year Bachelor of Pharmacy program in 2004 in parallel with the existing standard Bachelor program taught in Thai (Thai program). The English program aims to deliver competent graduates with an additional value to provide better career opportunities for the graduates. The English program was the first program for an undergraduate pharmacy program to be taught in English in Thailand. The program uses the same faculty and university resources, teaching staff and curriculum as the Thai program. In 2009, when the Faculty of Pharmaceutical Sciences switched from a five year (Bachelor of Pharmacy) to a six year (Doctor of Pharmacy) curriculum, the “English” program was revised and changed to the “International” program with an increase in global concepts.

In this study the learning outcomes of the first and second batches of students who graduated from the English program in 2009 and 2010, respectively, including overseas practice training, current employment, National Pharmacist Licensure Exam results, etc. were analyzed. The first and second batches of students in the International program were enrolled in the program in 2009 and 2010, respectively. Their purposes for choosing the program, future goals, difficulty of learning and other measures were surveyed and evaluated for improvement of the curriculum.

Learning professional subjects in a second language is a significant barrier to students since most of them are Thai and the environment does not make the students feel international. On the other hand, some teaching staff has not had much experience of teaching in English so that they may not introduce knowledge to their students effectively. Teaching staff must overcome these issues.

Objectives

The objectives of this study were 1) to evaluate the learning outcomes of a Pharmacy undergraduate degree program taught in English language (English program) and 2) to survey the opinions of the students who were enrolled in the International program in 2009 and 2010 with respect to their purposes of choosing the International program, future goals, learning barriers, and requests to the Faculty.
Method

The student admission data were collected from entrance examinations; employment data of recent graduates and student feedback were collected by staff; National Pharmacist Licensure Exam pass rates and the individual student scores were obtained from the Pharmacy Council. Student opinion survey was carried out for the first and second year students of the International program with a one page questionnaire with multiple choice questions and ranking without identifying the individual.

Results

Student Demographics

Student Demographics are shown in Table 1 for students who were enrolled in the English program in 2004 and 2005 and graduated in 2009 and 2010, respectively. The students who enrolled in the six year International program in 2009 and 2010 are shown in Table 2.

Table 1 Demographics of the English Program Students

<table>
<thead>
<tr>
<th>Year of Admission</th>
<th>Program</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP</td>
<td>RT</td>
<td>ST</td>
<td>Total Thai Ps</td>
</tr>
<tr>
<td>No. of applicants</td>
<td>528</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>No. of admitted</td>
<td>52</td>
<td>60</td>
<td>49</td>
</tr>
<tr>
<td>No. of dropouts</td>
<td>7</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>No. of graduates</td>
<td>40</td>
<td>51</td>
<td>41</td>
</tr>
<tr>
<td>No. of not completed in time of graduation</td>
<td>5</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

EP = English Program, RT = Regular Program, ST = Special Program, Ps = Programs, N/A = Data not available

Table 2 Demographics of the International Program Students

<table>
<thead>
<tr>
<th>Year of Admission</th>
<th>Program</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP</td>
<td>RT</td>
<td>ST</td>
<td>Total Thai Ps</td>
</tr>
<tr>
<td>No. of applicants</td>
<td>636</td>
<td>N/A</td>
<td>2,707</td>
</tr>
<tr>
<td>No. of admitted</td>
<td>60</td>
<td>62</td>
<td>50</td>
</tr>
<tr>
<td>No. of actually enrolled</td>
<td>50</td>
<td>62</td>
<td>48</td>
</tr>
<tr>
<td>No. of dropouts</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>No. of remaining</td>
<td>49</td>
<td>60</td>
<td>46</td>
</tr>
</tbody>
</table>

IP = International Program, RT = Regular Thai Program, ST = Special Thai Program, Ps = Programs, N/A = data not available

Overseas Clerkship

Qualified students can apply to a 4-12 week overseas training rotation as one of several elective courses. Students must have a Total GPA from 1st to 4th year higher than 2.0 out of 4.0, have English TOEIC score more than 600 out of 990 points and pass an interview with three faculty members.
Successful candidates are then sent to one of either acute care unit in a hospital, drug information center at a university, or a community pharmacy in the USA, Japan or Singapore for Pharmacy Practice tract training or to research laboratories in Japan, Malaysia, Taiwan, USA or Singapore for Pharmaceutical Science tract training (*Table 3*). Prior to sending students, Khon Kaen University (KKU) and most of the host universities/hospitals have agreed and signed a Memorandum of Understanding (MOU). There are six universities and one hospital for Pharmacy Practice tract training and five universities and one private company in five countries for Pharmaceutical Sciences tract training. Preceptors at practice sites are usually selected and recommended to us by the host universities. They are appointed as faculty members of the host universities and fulfill the qualifications for clinical preceptors. Some preceptors have visited KKU and gave lectures and seminars to students. Students who were selected for the exchange program are supported by KKU and Faculty of Pharmaceutical Sciences, KKU financially. These scholarships were barely enough to cover the air fair and a part of the housing fee.

---

**Table 3 Practice Training Sites**

<table>
<thead>
<tr>
<th>Country</th>
<th>Institution</th>
<th>2007</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>TTU</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>LMH</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>UW</td>
<td>(1)*</td>
<td>2</td>
<td>(2)*</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>WU</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>UIC</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>VCU</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>NMS Lab</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Japan</td>
<td>U. of Shizuoka</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>NIU</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>University of Toyama</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Community Pharmacy in Asahikawa</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Community Pharmacy in Chiba</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Malaysia</td>
<td>USM</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Singapore</td>
<td>NUS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Community Pharmacy, Guardian</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Taiwan</td>
<td>NTU</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

*Number of students KKU accepted from overseas sister universities
**Students were provided wages

<table>
<thead>
<tr>
<th>Country</th>
<th>Institution</th>
<th>2007</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>TTU</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>LMH</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>UW</td>
<td>(1)*</td>
<td>2</td>
<td>(2)*</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>WU</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>UIC</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>VCU</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>NMS Lab</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Japan</td>
<td>U. of Shizuoka</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>NIU</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>University of Toyama</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Community Pharmacy in Asahikawa</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Community Pharmacy in Chiba</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Malaysia</td>
<td>USM</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Singapore</td>
<td>NUS</td>
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<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Community Pharmacy, Guardian</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Taiwan</td>
<td>NTU</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

After their rotations students were evaluated by each preceptor, e.g. in Pharmacy Practice rotation in five areas including 1) Reliability, 2) Self Initiated Style, 3) Response to Criticism, 4) Interactions with Health
Professionals and 5) Pharmaceutical care skill. An example of the evaluation form for community pharmacy clerkship is shown in Appendix 1. All of the students received five points, occasionally four, out of five scaling score for their evaluation. Most preceptors were highly satisfied with the students’ English language ability as well as their professional knowledge and skills.

Here is an episode. One of the students was treated equally as other American students in a medical team consisting of doctors, medical students, and other health professionals. No one noticed that she was an exchange student until she mentioned that she would go back to Thailand. Her language skills and professional knowledge did not show any difference from other American students as she described her days at the English program in Appendix 2.

Through the overseas rotations, students had gained global professional manner and knowledge that made them confident in their professional knowledge and English skills. In addition, most of them would like to pursue their career internationally. As a matter of fact, two graduates from the English program with the overseas rotations obtained positions in a drug store in Singapore (See Appendix 3).

**Current Employment for Graduates**

The current employment data for the first and second batches of graduates from the English program are summarized and compared with the graduates from the Thai programs in Tables 4 and 5 for 2009 and 2010 graduates, respectively. One-third each of graduates (33% each) from the English program in 2009 became hospital pharmacists (mostly in private hospitals), and medical representatives. In the latter, most of them worked for foreign pharmaceutical companies in Thailand. This might have come from personal interest, better income and English proficiency. On the other hand, the pharmacist license is not required to work for drug companies as a medical representative and some graduates from the English program in this group had not passed the National Licensure Examination (Table 6). Almost half (49%) of the 2009 graduates from the Thai program became hospital pharmacists, in the governmental settings rather than private settings and 18% went to community pharmacies (see Table 4).
Regarding the 2010 graduates (see Table 5), most of the English program students became hospital pharmacists, community pharmacists, medical representatives, pharmacists in manufacturing. On the other hand, 45.7% of the Thai program became hospital pharmacists, 12.4% became medical representatives, and 6.7% became community pharmacists. One each of 2009 and 2010 graduates of the English program got a position at a community pharmacy in Singapore.

In the big picture of the English program or the current International program, it has the potential to educate pharmacy students to contribute to the global area.

Table 4 Current Employment of 2009 Graduates

<table>
<thead>
<tr>
<th>Program</th>
<th>Hospital Pharmacists</th>
<th>Community Pharmacists</th>
<th>Medical Representatives</th>
<th>Pharmacists in Manufacturing</th>
<th>College/University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thai (%, n = 80)</td>
<td>48.8</td>
<td>17.6</td>
<td>8.8</td>
<td>3.8</td>
<td>6</td>
</tr>
<tr>
<td>English (%, n = 36)</td>
<td>33.3</td>
<td>6.3</td>
<td>33.3</td>
<td>6.3</td>
<td>2.8</td>
</tr>
</tbody>
</table>

As of July 1, 2010

Table 5 Current Employment of 2010 Graduates

<table>
<thead>
<tr>
<th>Program</th>
<th>Looking for a Job</th>
<th>Hospital Pharmacists</th>
<th>Community Pharmacists</th>
<th>Medical Representatives</th>
<th>Pharmacists in Manufacturing</th>
<th>College/Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thai (%, n = 105)</td>
<td>12.4</td>
<td>46.7</td>
<td>6.7</td>
<td>12.4</td>
<td>4.8</td>
<td>1.9</td>
</tr>
<tr>
<td>English (%, n = 45)</td>
<td>17.8</td>
<td>26.7</td>
<td>22.2</td>
<td>8.9</td>
<td>4.4</td>
<td>0.0</td>
</tr>
</tbody>
</table>

As of July 1, 2010

A pharmacist license is required to work as a pharmacist at a hospital, community pharmacy, and even for pharmaceutical manufacturing in Thailand. Most students who were enrolled in Khon Kaen University Faculty of Pharmaceutical Sciences in 2004 had completed the course work and graduated early February 2009. They took the National Licensure Exam for Pharmacist in March 2009 that is given by the Thai Pharmacy Council twice a year. Average pass rates over the five-year period were 78.3% (50.0 – 95.9%) for graduates from 12 National Universities in Thailand and 33.2% (28.2 – 38.3%) for graduates from private universities. Although an individual student score is not open to the public, it is available to the respective university directly from the Pharmacy Council. Table 6 and Table 7 show new graduate pass-fail rates of the National Licensure Exam in March 2009 and March 2010.
(the first trials) for the English and Thai programs. The first trial pass rates (%) of 2009 graduates were 65% for the English program, whereas 96.1% for the regular Thai program and 87.8% for the special Thai program. The following year 2010, the pass rates of the English program was 65.1% and that of the regular and special Thai programs were 79.6% and 69.1%, respectively. From the data significantly lower rates were found for the English program. A factor to be considered is that students of the English program had learned all the professional subjects in English, but the National Licensure Exam was and will be given in Thai. However, graduates who could not pass the first exam in March 2009 could try the second time in October.2009 (the second trial). Most of failures of the first trial could pass the Exam, but still a few could not pass (see Table 6). The reason may be that they do not require a pharmacist license in their jobs so they did not work harder to pass the exam.

Table 6 The National Licensure Exam Pass Rate of 2009 Graduates

<table>
<thead>
<tr>
<th>Program</th>
<th>First Trial, N (%)</th>
<th>Second Trial, N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RT</td>
<td>ST</td>
</tr>
<tr>
<td>No. of passed</td>
<td>49(36.1)</td>
<td>36(26.8)</td>
</tr>
<tr>
<td>No. of failed</td>
<td>2(1.9)</td>
<td>5(12.2)</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>41</td>
</tr>
</tbody>
</table>

RT = Regular Thai Program, ST = Special Thai Program, EP = English Program.

Table 7 The National Licensure Exam Pass Rate of 2010 Graduates

<table>
<thead>
<tr>
<th>Program</th>
<th>First Trial, N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RT</td>
</tr>
<tr>
<td>No. of passed</td>
<td>39(79.6)</td>
</tr>
<tr>
<td>No. of failed</td>
<td>10(20.4)</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
</tr>
</tbody>
</table>

RT = Regular Thai Program, ST = Special Thai Program, EP = English Program

International Program

The opinion survey was carried out with multiple choices and rating for the first and second year students who were enrolled into the International program in 2009 and 2010, respectively. The top three rankings from the multiple choices were sum for each respondent.
1) Reasons of choosing the International program: As shown in Figure 1, the highest frequency was found with both first and second year students was “to pursue my career internationally upon graduation”, followed by “I like English”.

2) Advantages of being a student of the International program: As shown in Figure 2, the highest frequency obtained for both first and second year students was “I have multiple choices for my future study and working abroad.” A 77% and 66% of the first and second year students, respectively, picked this reason among their top three choices. The second ranking, very close to the first highest frequency was “I can study Pharmacy and professional English at the same time” for the first year students, while the second highest frequency for the second year students was “I have more career opportunity in Thailand”, followed very closely by “I can study Pharmacy and professional English at the same time.”

3) Means of understanding difficult lectures: As shown in Figure 3, all the students have experienced difficulty in some way and to some level. The question was what they do when they cannot understand the lectures. Almost 60% of the first year students look at the handouts distributed to the Thai program students or text books written in Thai. Thirty three percent (33%) of the students ask their classmates. On the other hand, 43% of the second year students ask classmates and 35% look at Thai handouts or textbooks. This might be a serious issue that the teaching staff has to consider. Some students complained that they cannot find enough English textbooks in the library.
Figure 1 Reasons of Choosing the International Program by (a) First Year Students (b) Second Year Students. The percents represent frequency that the students picked and ranked in the top three choices.

Figure 2 Students’ Opinions: Advantages of Being a Student of the International Program (a) First Year Students (b) Second Year Students
4) Being proud of a student of the International program: Almost all of both first and second year students are proud of being a student of the International program. Only one of each group said “no” (Figure 4). We did not expect such a big number of students are proud of being a student in the program. This fact encourages us to meet their expectations.

5) Expectations of the program: As shown in Figure 5, 44% of the first year students expect that all learning media are in English, while the second year students expect the environment is international-like (55% of students chose). Both groups expect that students should use English all the time in and outside the classroom, and teachers should use English all the time.
Conclusion:

The learning outcomes of the five year English program for the first and second batch of students fulfilled our expectations with the evaluation of overseas practice training, graduates’ employment data, and the opinions from the graduates. The program will be still continued until the year of 2013 when the last students will graduate from the program. Learning and teaching professional subjects in a second language is a significant barrier to the students and teaching staff since most of them are Thai. As the two graduates from the first batches mentioned in their essays, we are very confident in our education, if the students are eager to learn pharmacy in English. After the overseas practice training, we noticed that the students became much more mature, cared and helped others spontaneously, and became confident as pharmacists. We thank Khon Kaen University for the financial support to our exchange program by which many students had valuable practice training experience abroad. We also thank to the graduates who became role models for the junior students in the English program as well as the International program. On the other hand, as the students of the International program are expecting, the environment should be made to be international by increasing the number of foreign students in classes, inviting more foreign teachers,
facilitating the exchange program, providing more reference books in English, etc.

Overall, Faculty of Pharmaceutical Sciences and the teaching staff of the English program/International program are proud of their students and are confident with their goals and purposes.

Acknowledgements:

We would like to thank Drs. Jeff Johns and Somchai Suriyakrai, Faculty of Pharmaceutical Sciences, Khon Kaen University for their useful advice in analyzing data and preparation of the manuscript.

Appendix1

Clinical Clerkship Evaluation Form

Community Pharmacy

<table>
<thead>
<tr>
<th>Clinical Site:</th>
<th>Evaluator:</th>
<th>Student:</th>
<th>Rotation Period:</th>
</tr>
</thead>
</table>

Please write the appropriate performance level (rating into the box at the top of each column)

<table>
<thead>
<tr>
<th>Performance level</th>
<th>(A) Reliability</th>
<th>(B) Self Initiated Style</th>
<th>(C) Response to Criticism</th>
<th>(D) Interactions with Health Professionals</th>
<th>(E) Interview Patient of Drug History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poorest Anticipated Level of performance (1)</td>
<td>Student misses numerous days without notification to supervisor and/or rarely completes an assignment.</td>
<td>Student speaks and acts only upon request and often reuses to participate in directed activities.</td>
<td>Student ignores or argues when criticized, then negatively accentuates the criticized behavior.</td>
<td>Student does not talk to and acts independently of other health professionals.</td>
<td>Student consistently fails to obtain a drug history from patients and medical records.</td>
</tr>
<tr>
<td>Less Than Expected Level of performance (2)</td>
<td>Student is often late and occasionally is gone without excuse, assignments must be repeated.</td>
<td>Student will not initiate activity on his/her own but will perform as directed by</td>
<td>Student may respond to criticism after several confrontations.</td>
<td>Student is mostly an observer and does not actively contribute to the team process.</td>
<td>Student does not properly record the history and omits several details.</td>
</tr>
<tr>
<td>Level of Performance</td>
<td>Expected or Average Level of performance (3)</td>
<td>Better Than Expected Level of performance (4)</td>
<td>Best Anticipated Level of Performance (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>------------------------------------------------</td>
<td>---------------------------------------------</td>
<td>-----------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>before they are acceptable. the supervisor.</td>
<td>Student attends all days, is infrequently late, assignments are completed on time. Student listens to criticism, usually takes positive action and behavior is usually improved. Student interacts with other health professionals when asked. Student elicits obvious data, but is consistently ineffective in attempts to obtain information on subtle points.</td>
<td>Student is punctual, shows responsibility in dealing with exceptional circumstances; all assignments completed, and well organized. Makes decision on own but does not act before discussing with supervisor. Student modifies his/her behavior in response to feedback and frequently asks for further clarification. Student can tactfully, with appropriate terminology, relay pertinent information to relevant health professionals. Student elicits obvious data, and is usually effective in attempts to obtain information on subtle points.</td>
<td>Student arrives in patient care area early. Will stay late to complete work thoroughly. Assignments completed exceptionally well. Student consistently initiates activities and utilizes slack time soliciting questions, research, etc. Student encourages criticism questions and evaluates criticism before implementing any changes in established behavior. The student is an essential team member by providing information and insight into and therapeutic process. Student obtains and records complete drug history, including prescription and OTC drugs, present and past usage, adverse reactions, idiosyncrasies, and patient compliance information.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No opportunity to Observe (N/A)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 2

“Thanks to the English Program”

Ms. Patcharawadee Burarungroj
(2009 graduate)

Studying pharmacy is considered difficult already but studying pharmacy in English is even more challenging. However, the School of Pharmacy, Khon Kaen University has taken that challenge and eventually became the first institution in Thailand to establish such a program. The first batch of the English program, School of Pharmacy, Khon Kaen University has now graduated with several batches still to come afterward.

To comply with the initiative of the English program, or currently the International program, establishment, in the final year students receive a great opportunity to be on one rotation abroad. I have also received one at Texas Tech University Health Sciences Center. Rotation abroad was really a test in my life even it was only for a short period of time. My preceptor would have treated exchange students as if they were regular American pharmacy students. Case presentation, bedside counseling, ward rounding, pharmacy intervention to a multidisciplinary team or even a round table discussion amongst pharmacy team would also be done by an exchange pharmacy student like me. With all activities, language barrier should not be an issue; an exchange student should be ready to absorb and perform all assignments properly. The School of Pharmacy has really prepared me and all other students with required qualities to perform such tasks. In the School of Pharmacy, those activities were packed as a mandatory course for all pharmacy students in the Clinical Pharmacy Program, so it was really great experiences to sharpen skills in performing those activities again in a totally different environment such as a country like the USA.

Even though it has been almost two years since I graduated from the School, all memorable experiences and valuable skills have not faded away. They are enhancers in my current job. Being a Clinical Research Associate, good planning and management skills would perfectly accelerate work outcomes and studying in English or the English program has trained students to possess such qualities already. During the school years, all contents of every subject were in English, so most of the time students would have prepared beforehand in order to facilitate the understanding of each class.
Eventually, this routine preparation has become habit. Moreover, most of communication, work related materials in workplace are in English, therefore being a part of the English program with English in our veins, English again should not be an issue in a successful career. On the other hand, studying in the English program and equipping with English skills will enhance me now and in the future to further my career path successfully.

Thank to all teachers, professors and preceptors to prepare me for reality and I could not go this far without all of the effort they put into us all.

Appendix 3.

“Why does it have to be English program and what is its benefit?”

Ms. Jarusiri Tumpakdee
(2009 graduate)

When most of the people asked me, I told them that I was going to join the School of Pharmacy, Khon Kaen University, in the English program. Pharmacy is hard but to study it in English is harder. At that time I told myself that I chose the right thing for my future even though I really had no idea what I could do after I graduated (besides becoming a pharmacist who can use professional English in Pharmacy), but I thought that there’ll be some special benefit for my future career from this program. Personally, I myself have liked to learn English since I was young, so this English program could not be a problem.

I have gained a lot from the school—fruitful academic knowledge, friends that I will never find from anywhere in this world. We were the first batch and we knew it’s hard to get through this therefore we helped each other until we reached the goal. I feel thankful to activities for students to enhance our attitude toward life, devoted supervision from the faculty and above all was English. I could see that my English was improved year by year, little by little both in academic and daily life English. The advantage of study in this program is that you learn two things at once which are the academic subject and English. The year five was the most exciting for me in my school days since I had a chance to do an internship rotation in the U.S.A. I went to Lawrence Memorial Hospital, Kansas (one out of six rotations for 5th year students). I can say that this supreme experience I will never forget from my memories. I don’t know whether I would have this chance or not if I was not
in this English program. When I was at the site, I felt confident to interact with the professionals using my knowledge in English.

Time flies, and the first batch of the English program graduated in the year 2009. Everybody has his/her own way to go in his/her career. Absolutely, English is the property that attaches to each person which will help him/her to get a good position in the field. I am the one who benefits from this program. I’m now working in Singapore with Guardian Pharmacy, the number one pharmacy chain store in Singapore. According to the Singapore Pharmacy Council (SPC), there are only 4 pharmacy schools in Thailand which are recognized by SPC and one of them is the School of Pharmacy, Khon Kaen University. I would like to thank for the school which bestowed everything to make me as I am, a professional pharmacist. I can communicate with patients in English that is easy to understand, I can talk to my colleagues as I talk to my friends and I can discuss with health professionals in professional English. Now, I can answer the above question that it has to be the English program since I love it and its benefit is bringing me such a brilliant career.
Comparation of Pedagogic Competence and Professional Competence of Teachers Based on Certificate Ownership in West Java Province

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ABSTRACT

Teachers’ certification program is one of the efforts by the government to improve the quality of teachers in Indonesia. The qualified teachers have become the important element of the successful learning activities. The success can be achieved when the certification process fulfills the quality standard so that the output will be the reflection of teacher’s quality. The research aims are to find out the quality achievement of teachers certification program on the pedagogic competence and professional competence of certificate teachers compared to non-certificate teachers, and also among certified teachers according to the year of graduation as indicators of continuous improvement in this program.

The respondents are the teachers from 9 residents in West Java which are selected randomly. The technique and instrument of the data collecting use the test, then analyzed by using ANOVA, Tukey Post Hoc Test for the follow up after ANOVA, and regression.

The result shows that: 1) there are significant differences of pedagogic competence and professional competence between certified teachers (graduation of 2006, 2007, and 2008) and uncertified teachers. The differences are influenced by the age, position, working hours, and the ownership of educator certificate. 2) Pedagogic competence and professional competences of the certified teachers based on the graduation year (2006, 2007, and 2008) are on the average. The competence grade of the three graduation years are still under 60 percent. The research recommends that the teachers should participate more in professional improvement activities, the headmasters assist the teachers’ acceleration through the supervision function, resource facilitation, and educational financial resource. The educational department in regional stage incorporates with the Institution of Educational Quality Assurance (LPMP) of West Java province perform their duty and function in mapping, supervising, facilitating and organizing the regulations of competences improvement of teachers. Finally, in order to get new innovations to enrich the study of teachers’ certification program in Indonesia, there should be a further study.

Keywords: Pedagogic competence, professional competence, teachers certification
Pre-Service Training and Performance of Teachers in Selected School in Chonburi Province, Thailand

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ABSTRACT

The main objective of this study was to determine the significant relationship between the pre-service training and the performance of teachers in the selected schools in Chonburi Province. The descriptive-correlation method was used in this study. The convenience sampling procedure was used to obtain a sampling frame. The findings reveal that the pre-service training of the respondents is high; there is a high level of performance of the respondents in the practice of their profession; the gender, age, teaching experience is not factors of difference in the performance of the respondents; the academic qualification is a factor of difference in the performance of the respondents in terms of personal and professional characteristics in favor of the teachers with Master of Education degree or related field; Furthermore, the pre-service training has moderate influence on the teaching performance of the respondents. Based on the findings, the foregoing recommendations are offered: the tertiary institutions providing teachers’ training, in particular, should increase their pre-service training to very high level; the teachers were performing highly in their profession; thus, they should maintain it or even increase it to very high level; the school administrators should intensify in-service training for teachers with no education degrees and for those who have less than ten years of teaching experience. Moreover, the school administrators should encourage their teachers to pursue masters program by giving financial support and other incentives. There are factors influencing teaching performance of the respondents which are not investigated in the study; thus, another study related to service training and teaching performance should be conducted.

Keywords: Higher Education for Educational Administration
INTRODUCTION

Background of the Study

Education is dynamic and progressive. As it competes to a world of rapid technological and social change, the teachers, among other, will not only have to make the necessary adjustment but to prepare the students to become effective and productive citizens of the world. With this, teachers should undergo quality service training to make them responsive to the great expectations of the society concerning the delivery of quality education (Crowther, 2002).

Teacher training institutions should be strengthened to improve the quality of their graduates. This should be given importance because poor quality of classroom teaching is one of the key reasons for the overall low efficiency of basic education, which is manifested through low student learning achievements. Improving the quality of classroom teaching is the key to improving the quality of education. At present, entry-level qualifications for primary teachers are low, and the majority of the teachers have little or no training. The absenteeism is high and motivation is low (Coleman, 1997). The educational institutions should provide in-service trainings to allow the teachers to keep abreast with the currents trends in education both in theory and in practice because the concepts learned ten years back or more may not be applicable to the present set up. In the United States, according to Feistritzer (1999),

Statement of the Problem

Various programs on elementary and secondary education have, so far, concentrated on in-service teacher training since the vast majority of teachers are in schools and need immediate attention. The pre-service training remains within the realm of government initiatives and not much changes have come about in their content and approach. It is found to have the following characteristics: there is a lack of relevance of many of the training components to the real needs of the teachers and the demands of the actual classroom situation they might face; the training in the teachers’ institution is itself very mechanical in nature; and there is a lack of emphasis on and inadequate time devoted to teaching the practical aspects of classroom work such as teaching strategies, classroom management techniques, reading and language teaching skills. Due to this, there is a resultant poor quality and how low level of expertise of students graduating into primary teaching. Thus, the inculcation of the basic skills should be foremost and the school and classroom contexts should be kept in mind while carrying out the same (Orlich, 1998).

A national profile of teacher quality is a necessary tool for tracking progress; however, providing such profile is not an easy task. Teacher quality is a complex phenomenon, and there is little consensus on what it is and how to measure it. Efforts to collect such data have included diverse methods, such as classroom observations and videotaping, the administration of large-scale surveys, and the collection of artifacts. Moreover, the Congress
of the United States has been called to review and respond to the growing need for better teachers.

This study aims to determine the service training and the performance of teachers among the selected schools in Chonburi province. Specifically, it seeks answer to the following questions:

1. What is the level of pre-service training of teachers among the selected schools in Chonburi in terms of the following:
   1.1. Professional development
   1.2 Community Involvement
   1.3 Research Capability
   1.4 Multimedia Capability

2. What is the level of performance of teachers among the selected schools in Chonburi in terms of the following indicators:
   2.1 Instructional competences
   2.2 Personal and professional characteristics

3. Is there significant difference in the performance of teachers in the selected schools in Chonburi Province when analyzed by:
   3.1 Gender
   3.2 Age
   3.3 Teaching Experience
   3.4 Academic Qualification

4. Is there significant relationship between the pre-service training and performance of teachers in the selected schools in Chonburi Province?

**Hypotheses**

The following null hypotheses are tested in the study:

Ho 1: The performance of teachers in the selected schools in Chonburi Province does not differ significantly when analyzed by gender, age, teaching experience and academic qualification.

Ho 2: The pre-service training of teachers in the selected schools in Chonburi Province is not significantly related to their performance.

**Theoretical and Conceptual Framework**

This study is anchored in the theory of Coleman (1997), that adequate teacher service training leads to improvement in teaching skills and competence of teachers. This theory is supported by Combs (1990) who said that the quality of training that teachers undergo determines their teaching performance.

In support to the above theories, Lucido and Borado (1997) stressed that the quality of teacher service training helps to improve the overall efficiency of the teaching-learning process. The independent variable of the study is the service training of the teachers with two indicators namely, pre-service training and in-service training. The pre-service training
consists of professional development, community involvement, research capability and multimedia capability. The dependent variable is job performance of the respondents which includes instructional competence, personal and professional qualities. The moderator variable comprises gender, age, teaching experience, and academic qualification.

**Significance of the Study**

The results of the study are beneficial to the following:

**Deans of Faculty of Education Institution (FEIs).** The study provides the deans or chairs of the FEIs with valuable data needed for the formation and revision of the curriculum and for setting the directions for future management of the teacher training schools. The findings on educational qualifications, type of school graduated, co-curricular involvements, awards received or achievements, community participation and seminars and workshops attended may help the teacher education institutions to determine their extra and co-curricular activities that would strengthen their preparation for future teachers.

**School Administrators.** The research will provide school administrators baseline information as basis for decision making on vital matters affecting recruitment and hiring of teachers. This serves as a feedback for them to design school-based plans for their teachers’ orientation activity.

**Researchers.** This study serves as a reference in dealing with school administration through the data and information on pre-service education and training or pre-service teachers and their teaching performance.

**Students.** The findings of the study will benefit the students in the sense that if teachers are given the necessary assistance and support, they will become more equipped and confident in their tasks, which will lead to better performance, and the recipients are the students themselves.
Definition of Terms

The following terms are defined conceptually and operationally to have a clear and common understanding.

**Pre-service Training.** The term refers to the process of obtaining information that is used for making decisions about students, curricula and programs, and educational policy (Gordon and Maxi, 2000). As used in the study, it refers to the training of teachers during pre-service...
education in terms of professional development, community extension, research capability, and multimedia capability.

**Professional Development.** The term refers to the process of growing and developing (Webster, 2002). In this study, the term involves addressing the concerns of teacher of Chonburi Province with respect to improving learning in the classroom.

**Community Extension.** It refers to addressing the needs of the community (Kretzmann, 1993). As used in the study, it refers to the services offered to the community by the teachers of Chonburi Province.

**Teaching Performance.** It refers to the act or process of carrying out teaching task (Bremer, 1993). In this study, it refers to the year-end performance of teachers as rated by the school administrators in Chonburi Province.

**Instructional Competence.** This refers to the quality of being functionally adequate in the practice of profession or having sufficient knowledge, the skill or strength as for a particular duty (Hanson, 1996). In this study it refers to the teacher’s lesson planning and delivery, learner’s development, and school, home, and community involvement.

**REVIEW OF RELATED LITERATURE**

Presented in this study are the review of related literature and studies taken from books, periodicals and internet which are related to the present study.

**Service Training Programs**

According to Berry et al (2002), teaching is a highly complex work, requiring the highest standard of professional practice to perform it well. It is complex because it requires not only knowledge of a complex subject matter, but also in many other functions such as planning standard-based lessons and translating subject matter knowledge into a curriculum appropriate for students. Thus, it is suggested that to make teaching less complicated, teachers must be prepared for this complex task for without their competence and skills, the future will be malformed.

**Performance of Teachers**

The performance rating of public school teachers implies a great importance. One of its uses is the promotion of performance-based security of tenure. This means that the security of tenure of those holding permanent appointment in the government is not absolute but is based on performance. Employees who obtained unsatisfactory rating for two periods and poor rating for one rating period may be dropped from the rolls. Another use of performance rating is the eligibility for performance-based awards and incentives. The Department of Education Performance Appraisal Review Committee (PARC) validates outstanding performance ratings and may recommend employees for performance-based awards. Grant of incentive like productivity and incentive bonus shall likewise be based on the final ratings of employees as approved by the PARC.
METHOD

Discussed in this section are the research design, research respondents, research instruments, data-gathering procedure and statistical treatment of data.

Research Design

The descriptive-correlation method was used in this study. This method determines the nature of prevailing conditions, personal, situational environment and factors and practices. In correlation research, it involves collecting data in order to determine whether, and what degree, a relationship exists between two or more variables (Gay, 1996). Therefore, this method is appropriate in this investigation the fact that it assesses the level of service training and performance of teachers in the selected schools in Chonburi Province.

Respondents of the Study

The respondents of the study are the teachers in the selected schools in Chonburi Province. The desire sample size of was determined using the Slovin’s equation. The convenience sampling procedure was used to obtain a sampling frame. The researcher took the closest persons as respondents, continuing the process until the sample reached a predetermined size.

Table 1
Distribution of Respondents

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number of Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>65</td>
<td>33</td>
</tr>
<tr>
<td>Female</td>
<td>134</td>
<td>67</td>
</tr>
<tr>
<td>Total</td>
<td>199</td>
<td>100</td>
</tr>
</tbody>
</table>

Research Instrument

This study used two sets of questionnaire in a form of a checklist. One of which was designed to draw out information about the level of service training and performance of the teachers in the selected schools in Chonburi Province. The second part of the questionnaire used in the study is the Performance Appraisal System for Teachers (PAST). A slight modification of the second part of the instrument is done particularly on the scoring.

The scoring of the adapted Appraisal System for Teachers is originally scaled ranging from 2 to 10 with an interval of 2. The scoring is modified into 1 to 5 to make it comparable.
with the dependent variable scoring. In a desire to standardize the items of the constructed instrument, a group of experts is requested to validate the said questionnaire.

<table>
<thead>
<tr>
<th>Exact Limits</th>
<th>Level of Service Training Performance</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.50 and above</td>
<td>Very High</td>
<td>The pre-service training and performance is very far above the expected level.</td>
</tr>
<tr>
<td>3.50 - 4.49</td>
<td>High</td>
<td>The pre-service training and performance is far above the expected level.</td>
</tr>
<tr>
<td>2.50 – 3.49</td>
<td>Moderate</td>
<td>The pre-service training and performance is just the expected level.</td>
</tr>
<tr>
<td>1.50 – 2.49</td>
<td>Low</td>
<td>The service training and performance is far below the expected level.</td>
</tr>
<tr>
<td>1.0 - below</td>
<td>Very Low</td>
<td>The service training and performance is very far below the expected level.</td>
</tr>
</tbody>
</table>

**Data Gathering Procedure**

The following steps are observed in the gathering of data from the respondents:

1. The researcher will request permission from the school administrators concerning the conduct of the study on service training and performance of teachers. Upon the approval of the school administrators, the researcher will personally administer some of the instruments to the identified respondents of this investigation. Other individuals who are closed to the researcher will conduct the administration of most of the instruments.

**Data Analysis Tools**

The date gathered through the questionnaires are tallied and treated using the following statistical tools:

- **Mean.** This is used to describe the levels of service training and performance of the respondents in answer to sub-problem 1 and 2.
- **t-test.** This is computed to determine the significance of the difference in the performance of the respondents when analyzed by type of schools in response to sub-problem 4.
- **ANOVA.** This is utilized to determine the significance of the difference in the performance of teachers in the selected schools in Chonburi Province.
- **Pearson r.** This is used to determine the significance of the relationship between service training and performance of the respondents in response to sub-problem 4.
PRESENTATION AND ANALYSIS OF DATA

The data gathered from the respondents were analyzed and interpreted and presented in this section. The order of the discussion was centered on the following sub-heading: Level of Service Training of the Respondents; Level of Performance of Teachers in Chonburi; Significance of the Difference in the Performance of the Respondents When Analyzed by Gender, Age, Teaching Experience, and Academic Qualification; and Extent of the Relationship Between Service Training and Performance of the Respondents.

Data show that the respondents are highly involved in outreach community program; in raising the literacy level of the community; in establishing a friendly relationship with the community, in community visitation, and in rendering services to the community. This implies that the respondents are highly developed in terms of giving services to the community.

Data reveal that the respondents are highly involved in research as part of their college preparation. This implies that they have better concept about research and believe that research is a contribution in upgrading the quality of leaning and human life.

Data further imply that the respondents are highly equipped with research skills needed in solving life’s problem.

Level of Performance of the Respondents

The performance of the teachers is measured through instructional competence, personal and professional characteristics. The data of these indicators are discussed as follows:

Analysis of the data shows that the respondents demonstrate a high level of teaching performance. This means that the respondents’ teaching performance is far above the expected performance. This implies that the teacher respondents coming from Chonburi Province are competent in the exercise of their profession. This further implies that the respondents are highly capable of responding to the learning needs of their students. This furthermore implies that the respondents are highly equipped with the knowledge and skills necessary in the effective practice of their chosen career.

Data show that the respondents display a high level of personal and professional qualities. This means that the personal and professional qualities of teachers in Chonburi Province are far above the expected level. This means that the respondents deserve to be in the teaching profession for they possess qualities necessary in the event of educating individuals. Data further imply that the teachers of Chonburi Province are highly capable of making instructional decision, maintaining human relations, and influencing the learning behaviors of their students. Data furthermore imply that the respondents are highly committed to their present profession; thus, they are satisfied with their job.
SUMMARY, CONCLUSION AND RECOMMENDATIONS

Presented in this chapter are the summary, conclusions, and recommendations based on the findings of the study.

Summary of Findings

The findings of the study are presented as follows:

1. The mean value for pre-service training was 3.87 or high which was obtained from the professional development mean of 3.96 or high; 3.63 or high for community involvement; 3.97 or high for research capability; and 3.94 or high for multimedia capability.

2. The mean value for the performance is 4.23 or high level. The computed mean scores are 4.26 or high for instructional competence; and 4.20 or high for professional characteristics.

3. When analysis was done by gender the computed t-value for instructional competence is .440 or not significant with p-value of .66; and computed t-value for personal and professional characteristics is .491 or not significant with p-value of .624. When grouped by age, the computed F ratio for instructional competence indicator is 1.811 or not significant with .166 p-value. The computed F ratio for personal and professional characteristics indicator is 4.605 or significant with .011 p-value. When analyzed by teaching experience, the computed F-ratio for instructional competence is 1.644 or not significant with .196 p-value. The computed F ratio for personal and professional characteristics is 2.687 or significant with .025 p-value. The F ratio for personal and professional characteristics is significant for its probability level is less than 0.05. When grouped by academic qualification, the computed F ratio for instructional competence is 1.026 or not significant with .360 p-value. The computed F ratio for personal and professional characteristics is 2.211 or significant with .042 p-value.

4. The computed r-value for the correlation between professional development and overall performance of respondents was .267 or significant, -.039 or not significant between community involvement and overall performance; .415 or significant between research capability and overall performance; -.155 or significant between multimedia capability and overall performance of respondents. The correlation between overall pre-service training and overall performance of the respondents yields an r-value of 0.43 or moderate correlation.

Conclusions

Based on the foregoing findings, the following conclusions are drawn:

1. The pre-service training of the respondents is high.
2. There is a high level of performance of the respondents in the practice of their profession.
3. The gender, age, teaching experience is not factors of difference in the performance of the respondents.
Recommendations

Based on the foregoing findings and conclusions, the following recommendations were offered:

1. The tertiary institutions providing teachers’ training should increase their pre-service training to very high level.
2. The teachers were performing highly in their profession; thus, they should maintain it or even increase it to very high level.
3. The school administrators should intensify in-service training for teachers with no education degrees and for those who have less than ten years of teaching experience. Moreover, the school administrators should encourage their teachers to pursue masters program by giving financial support and other incentives.
4. There are factors influencing teaching performance of the respondents which are not investigated in the study; thus, another study related to service training and teaching performance should be conducted.

References


THE IMPACT OF SOCIETY AND CULTURE ON EMPLOYEES’ BEHAVIOUR IN FORMAL ORGANIZATION

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ABSTRACT

This paper looks at the employee as a member of both the society, culture and the organization he serves and the impact of the society values on his behaviour at work. It believes that society is conglomeration of different organization with different opinions dictating personal, group, interpersonal, values which could have positive or negative impact on its components units. A final examination is also taken on the developing economies of Africa, communist economies of Soviet Union and China or the advanced capitalist western economies which societal impact values played on employees’ behaviour and performance directly.

INTRODUCTION

Formally or informally organizations exists as the distinguishing features of the modern society. They are found in many sizes, styles and with different intensions and functions. It is agreed with no reservation that organizations have come to stay for their pervasive and ubiquitous nature in the world today. Whether they exists in the production of goods (industrialism), that is provision of goods and services or in governance as is found in political structures and the civil service. It is definite that success in achieving set objectives in these areas can be realised through a formal organised structure.

Accordingly (Broom and Selznick 1968:462) opined that “among the master trends of modern history is the rise of industrialism, economic and social order based on machine technology and on a larger scale, highly special system of production”.

Smith J. H. (1972) postulated that, if the 19th century really was the age industrialism, the 20th century may as well as contrasted as the age of organizations.

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Organizations could be formal such as African Petroleum Company, Exxon Mobil, Shell Petroleum Development Company etcetera. There is no gainsaying the fact that informal organizations are found in formal structures which themselves constitute informal organization within a formal structure. Invariably, our matter of discussion exist within our society and members of this society are members of the formal organization viz, aviz, this write up attempts to look at how the society and culture affect worker’s behaviour in formal organizations.

Attempt will also be made to look at workers behaviour in formal organization and the nature of the organization as a function of societal role on them and the organization.

THE CONCEPT OF A SOCIETY

The word society is often spoken of generally in a common sense way. Often we hear statement like “our society is becoming unmanageable or very sophisticated in criminal activities” Idaresit I. U. (2010). Here “society”, could means the country, state, local government or something more general and unspecified and could even be a specific village the speaker comes from.

Society according to Marshall (1998) is “a group of people who share a common culture, occupy a particular territorial area, and feel themselves to constitute a uniform, unified and distinct entity” Durkheim, E. (1947) postulated that society expresses the network of human social interaction, it is qualitatively different and new, and has the consequences of influencing the actors subsequently. He affirms that society is real because communication and organization create properties that individuals do not possess. According to Durkheim, to understand society is to understand consensus on values.

Idaresit, I. U. (2010) opined that society has culture which determines mode of conduct and expectations among its members and groups. It ensures the development of networks of personal behaviour among its members and groups in their daily activities to meet and satisfy their needs in peace and harmony. He further stated that society, however, is not as simple as it is often spoken of. It is a more complex entity that is often difficult to comprehend in all its ramifications.

According to Ottong (2004) “the concept of society is generally said to be an abstraction, for while every one might claim to know what society is without perhaps
reforming to something else…” We all live in a society which is “the totality of our social life. It refers to the whole complex network of social world in which human beings live Ottong (2004). Njama-Abang (2006) said the concept of society is often used in a very general sense to denote any form of human grouping, a small primitive non-literate people to a large modern industrial action state. As is the case with community, membership of a society implies commonality of pattern of organization, interest and goals, as well as shared customs, laws etc. Thus, a society could vary from the specific sense of a relatively small organized group of people to the general sense of the total world of human being that is human society.

Ottong (2004) believes that organizations are components of society and “society is actively and creatively produced by human beings” Marshall (1998). Members of a society are concurrently members of one organization or the other. For most of us, being a member of a group is as normal as daily flowi ng in and out of the ocean’s tide. In short, being a member of a group or groups in usually a basic part of much of our lives (Kossen, 1978).

THE CONCEPT OF CULTURE

Culture refers to a configuration of learned and shared patterns of things, ideas, emotions and actions which arise out of language communication within a social group and helps the individual to adopt to his biological nature, and his group life. In general, culture is the learned portion of human behaviour, the ways of feeling, thinking and doing things (Biesana, 1965).

Culture can further be referred to the totality of the way of life of a society. It is made up of its members, customs, traditions and beliefs; their behaviour, dress, languages, their way of living, relationship networks and their attitude to life; the focus of group loyalty and the way they all perceive the world.

Taylor (1871) provides one of the earliest definition of culture as “that complex whole which included knowledge, art, morals, laws, customs and any other capabilities and habits acquired by man as member of the society”. It is important to note that they cannot be culture without a society. It is effective within a specific environment. Every society has its own unique culture which is developed throughout history and passed on
from one generation to another. It is not biological interested by learnt. It is a human product which arises out of social interaction and provides the basic pattern for meeting our biological and social needs.

Durkheim in Ekpenyong (2003) argues that social orders emerged out of school constraints which arise when individuals internalize the culture (rules, customs etc) of society. He said that people internalize the social norms and abide by them. Following, his argument, it may be said, therefore, that it is not that the rules and rewards (negative/positive) sanctions are there to motivate behaviours, but that individuals are almost robots and behave so.

WHAT ARE FORMAL ORGANIZATIONS

In an explanation of the above perspective, Etzioni (1961) defines organization as social units which predominantly oriented to the attainment of specific goals. Giddens (1988) similarly defines an organization as “a large association of people, run on impersonal lines, set up to achieve specific objectives. In other words, formal organization is a pre-planned authority relationship established or deliberately designed to enhance patterned interactions among individuals, in order to realize some clearly defined goals.

It is worthy of note that organizations do not just happen, they are formed for specific purposes and are nurtured to achieve specific goals. According to Auguste Comle in Ekpenyong (2003) the concept of organization refers to “the general social agreement which makes for collective participation in a system. Similarly, to Spencer, social organization refers to inter-relations of institutions in society, which made for system integration and differentiation (Ottong, 2004).

Formal organizations are specific organizations. They are created for specific purposes and are the dominating features of our society today – in small and large scales and is defined as “a form of social grouping which is established in a more or less deliberate or purposive manner for the attainment of a specific goal (Mouzelis, 1975). For identification purposes, formal organizations have the following features: they are purposely formed, they are structured; they have set goals to achieve in time and space and they are social groups – made up of human beings, Robbins (1987).
Similarly, Kartz and Khan (1987) have stated that organization run as systems – “a set of inter-related parts that operate as a whole to achieve common set goals. These proponents came up with numerous characteristics of the open system to include importation of energy from external environment to survive, the through-put the processing of material, the output or export of finished products etc and see organization as cycle of events.

THE EMPLOYEE IN FORMAL ORGANIZATION

In this state of economic letdown, many employees are laid off from organization they serve. There is cry of unemployment figure rising every year. The militating challenges of unemployment bring an up-rising of militant recruitment, increase number of armed robbery, kidnapping, hired assassins, bunkering, terrorism, human trafficking, youth restiveness, oil pipe line vandalization, violent demonstrations, ritual killings, 419, cultism, prostitution, alcoholism, drug addition, persistent fear of family rejection, insomnia (sleeplessness), mental disorder or psychosis etc are all associated with unemployment today. Can these vices cease in the society if there is near full employment opportunity for all employees?

One socio-economic problem of Nigerian society is unemployment. However, there is a controversy in determining who is employed and who is unemployed since one can only be judged unemployed if he seeks or waits for work Ukeje (2005). The society places emphasis on her members to be organized into production entities to ensure effective provision of the needs of members of the society. If any one may ask, what are the basic needs of the members of the society? Most answers to this question can be found in the reasons why people go out to work – to be able to satisfy their needs. It is important to note that society has a culture. Every society’s culture determines its values for its members,… “those thongs that are worthwhile and worthy striving for, what are preferable and desirable, those things that are good, morally acceptable, etc.

Kossen (1978) said that getting a job is a great respect to every adolescent and adult in the society. Hinting for good jobs starts in the final year of every undergraduate student. To answer the question why people want to work, people work so that they can eat, dress, own houses (shelter), own cars and have good personality to reckoned with and
be satisfied. They go to work with the aim of satisfying those needs through the remuneration they will receive. Kossen further stated that some needs are economical; others are material, psychological and social. Formal organizations are formed for specific purposes and directed to achieve specific goals. The obligations that employee on the one hand and organization on the other hand owe each other are met in the psychological contract. In this perspective, the individual employee applies their efforts, skills, energies to organizational activities to effect organizational goal attainment. The organization in turn provides the individual with valued goals or rewards for their contributions. Those could both be financial, non-financial, prestige power, position etc (Inyang, 2008).

The organization has goals to achieve and mobilizes men and women in a coordinated manner with full expectation to achieve these goals (Idaresit, I. U.). In another development, individuals differ in satisfying level of their needs. They are always proposing high to meet their daily needs in one way or the other always hoping for self-actualization. The chief proponent of self-actualization theory Abraham Maslow demonstrated four categories of human needs that motivate individual to include basic need for (a) food, sleep, shelter, etcetera; (b) security and safety (c) love and affection (d) self-esteem to be respected by others (Marshall 1998).

THE EMPLOYEE OF FORMAL ORGANIZATION AND THE SOCIETY

An employee is a bonafide member of a society. he is born and breed in a society and he is as well a member of an organization that is sited in the society. Firstly, he belongs to a society before the organization. The early life of the employee, his educational life, orientation, view of the world, etc are got from his society. His immediate society of interaction is the family that is family of association and later, his procreation family.

The family and the procreation society (larger society) creates a mind set pattern of behaviour of the employee in life. Accordingly, Duh and Belak (2009) believes that “the family is an immediate room where the core values, culture as well as ethical climate of the family as well as the larger environment is shaped and the first social relationship are formed. All these differ from the relationships with people outside the family circle”.
The cultural values of society also play a very significant role in the life of an individual and this he takes or transfer to the work place. The impact of society on the employee differs significantly both in space and time. Taking a look at simple rural societies as in the pre-industrial revolution Britain, the impact and pressure of family and society on the employee was non existent. This was stated by Oliver Goldsmith in his poem The deserted Village in Moles and Moon (1967)

“A time there was, ere England’s griefs began, when every rood of ground maintained its man;
For him light labour spread her wholesome store; just save what life required, but gave no more;
His companions, innocence and health;
And his best riches, ignorance of wealth”

Considering the pre-industrial society of England as seen in the poetry is very clear when compared to the contemporary highly materialistic Nigeria and other countries of the globe including England.

A careful look at the employee, he is faced with a lot of challenges in organization when he works and from the home, form the family, government policies, expectations from the society etc. The employee is faces with a lot of bombarded influences within and without his organization. The employee is seen as the product of his total society and environment. His relationship with his friends and family can significantly affect his behaviour and attitudes on the job (Kossen, 1978).

Typical average graduate employ comes from a relatively poor socio-economic family background. He is saddled with serious responsibilities as soon he gets a job. When he must have not received his first salary, his uncle who may have contributed for his fees would sound one his (uncle’s) sons to go and live with the young graduate employee in the city where he works. Yet to earn his first salary, the young graduate employee would be faced with regret of financial commitment from extended family and others. These types of pressures mounted on the young employee accounts for the pervasive corrupt practices inherent in the bureaucracy that employee indulges in to make ends meet at all cost.
MATERIALISM OF SOCIETAL VALUE

Socio-economic environment – The Nigerian socio-economic environment is a very materialistic one. The Nigerian society is known for acknowledging money bags irrespective of their source of funds. No matter how one makes the money no one cares. Unfortunately, some youth scan account how some of the money – men got to where they are yet the society gives such people a credible recognition. All that concerns a typical Nigerian employee or politician today is to make money whatever way to buy the current or near current car brand – the jeep series being most preferable. The youth therefore begin to see such life as a model and become disenchanted in hard work, uprights and display of rectitude. As a result, they down play acquisition of skill and expertise since they assume that it take them no where.

The local government chairmen, counsellors, and all other political appointees at local governments, states and federal levels are known to cart away form their offices enormous wealth beyond their salaries, this is what the Nigerian society expects form any prominent or successful man. It seems the society is telling the employee “make big money fast from your office”. But one thing the youths should note is that the Nigerian system will not remain the way it is, because it is and is changing for better; where honours shall be given to those whom they are due (Nnamdi 2008 and Idaresit, i. U., 2010).

INSTITUTIONALIZATION OF OSTENTITIOUS LIVING

Living ostentatiously is legalized in the culture of our country or society today. Operation show yourself as a wealthy man in our society today starts from traditional marriages, church marriage anniversaries, burying the dead, birth day celebrations, child dedication, thanksgiving on appointments, promotion to higher rank, many other forms of showing off celebrations, child dedication, thanksgiving on appointments, promotion to higher rank, many other forms of showing off celebrations. The society also expects much from an average typical Nigerian to make sure that he demonstrates his status as a wealthy person in the society.

To say the least, churches are also involved in this show of how wealthy you are during fund raising for the ministers’ up keep, church building, purchasing of cars and other expensive gifts for the pastors. Not left out of this wealth demonstration is during
ordination of deacons, deaconesses, at baptism of members among many others. It is observed that huge sum of money is spent during such celebrations. Almost every one is conscripted into this societal band wagon of those who beliefs are the talk of the town because the society expects it.

THE GET-RICH QUICK SYNDROME

Idaresit, I. U. (2010) observed with disappointment that people pervade the country places an unseen hand or pressure on the worker in any organization to invent ways of making more money from their work place. To make more money while working, some people now tend to engage in more income earning activities generally known as private practice (PP) outside their official work place during official hours.

Some women most affect trade in commodities during official hours, some go out to buy goods for sale during official hours etc. the result is that these set of workers are not committed to their official employment. He further pointed out that absenteeism, lateness to work; false sick leave and other excuses contribute to low productivity of workers and prevents achievement of organizational goals. When commercial motorcyclists were in business in state capitals in Nigeria, it was common to see primary and secondary school teachers, police, civil servants and other workers engage in carrying people around for payment during official hours when they should be at work. Furthermore, he said that most civil servants have fridges in their offices which they stock with drinks, fruits, snacks etcetera for sale to others in the organization.

Idaresit (2010) said that the above cases are peculiar to the Nigerian society and their work place. He further underscores the result of societal impact on the Nigerian at extreme materialistic level and a near madness of some sort where money is involved in a public office. These examples could not be possible of society members did not encourage and reward massive theft or condoned massive indiscipline corruption in the public service and in private organization Idaresit, I. U. (2010).

From the foregoing as stated by Idaresit, (2010) the employee in formal organization is a member and product of his society and bears the trade marks of the values of his society. a look at the foot print of materialism and corruption in the Nigerian society can be understood of the level of stealing in public organizations all over the country without anyone being punish no matter the glaring evidence against the officers concerned.
The current saga or purging in the banking sector by the Central Bank of Nigeria Governor is another information to show the level of how societal adulation of stolen wealth makes most public officers in organization in Nigeria make go with any sums of money allocated to his office converting such monies to his private use. The result of these societal values which the employee takes to the work place or organization in Nigeria has bastardize and plunder the Nigerian economy by both junior and senior officers to extent that the country is almost becoming a failure.

It is noteworthy that these societal vices are not prevents to Nigeria lone but many countries of the world are involved. Materialism is a world-wide issue of this generation. What is prevalent in Nigeria is also happening in other parts of world and could be worse in many countries. It is a universal phenomenon with degree of its happening in those countries but in Nigeria it is very painful. The concept of materialism is an umbrella word that encompass or breeds sub-vides of which sexual immorality cannot be out it. The culprits of these immoralities seem to be on the increase in our formal organizations, example in America as in the celebrated case of their former president Christian versus Monica Lewinski episode.

Moving away from America on another current issue is that of the Italian Prime Minister Belusconi romantic affairs with a teenage girl, churches have become harvesting field for pastors and members having this unethical relationship with their young female members even though these pastors and their male members who indulge in this act are married. The today’s girls no longer respect womanhood again as they rather go hunting and setting traps for their male counterparts through the amount, quality and strategic ‘generous’ bodily exposure and carry same societal values to the workplace, the church, university campuses and the civil service and other public places. Very many people have been identified to be victims of these tantalizing intrigues and onslaught of the female gender on the masculine members of the organizations.

The consequence of the above is the grave negative effect it has on the organizational productivity, employee less effectiveness, and it has greatly disrupted the achievement of the organizational goals in our country or society. Another area of influence from society that workers bring to the organization is occult practices. In the first place, the church plays and important role in moulding the moral values of members of
society, where the teachings of the Christian faith is well received, members would demonstrate equitable attitudes to work and their productivity would likely improve especially when they are satisfied with their official remuneration (Inyang, 2004). Although, it has been observed that cultism is yet to find its footing into organizations and the larger society, most workers are known to enlist the services of witch native doctors to effect their promotion in their workplace. They also go further than this to enlist the services of witch doctors to harm the managers who have disciplined them at work and other demonic practices.

May it be emphasized here again that government has a lot of impact on the employee behaviour. Idaresit, I. U. (2010) states clearly here that in socialist and communist states like former Soviet Union (USSR), production activities are centrally planned by the state. The numbers of cars to be built, the number of houses, guns, planes, etc, are all determined centrally by the government. In a common economy of such countries workers have no right of their own. What the government gives them is what they take and nothing more. To further buttress his point, he cited business organizations in China and other East Asian countries such as Japan, Viet Nam, Korea, etc have very strong family based interest. “The family is the foundation of Chinese organizations including business ones. In the west one often refers to “family business”. For the Chinese, the term “business family” may be more appropriate since the family comes first ad the business second” (Chen, 2010). Chinese families have very strong attachment to family reputation and they are always to excel no matter what it cost them in order to uphold the family reputation for as their leaching goes when an individual is honoured, the whole family is said also honoured and when individual is injured the whole family is injured (Chen, 21010). The Chinese business is therefore family financed, family accountable and family successful.

Another very important guiding philosophy for business organizations in China and East Asian people is the conficianism. The philosophy binds the people together into a monolithic economic power block of strong hold. Basically on this premise, from mainland China to Japan, Taiwan, North Korea, Vietnam, Cambodia and Singapore the songs of confucus is the guiding prospect to business organizations. “Confucianism a Chinese ethical and philosophical system was developed and brought by a Chinese philosopher
Confucius in (551 – 478). The complexity of this system is of high moral, social, political, philosophical and quasi-religious thought with high impact on the culture and history of East Asia” (Wikipedia).

CONCLUSION

The employee is a member of his society and also a member of his organization. On a level playing ground, he plays a belonging role in meeting the expectation of both his organization and the society. by doing this, he has his personal needs to satisfy and those of his society and strive to achieve the organizational goals for which he is employed and is paid for. His family that is the immediate society has heaped a lot of demand on him which he must try to meet these demands. The employee lives in the dictates of the cultural values and societal norms which he is a member. In the Nigerian materialistic society every employees aspiration is to be successful in his or her endeavour. The evaluation of his success is accessed in term of the number and sizes of his houses, cars he drives, the number of chieftaincy, titles he must have brought, the millions he had donated in public gatherings among others. Another question is, was he a potential appointee? If he was how many government projects did he bring home to his local government area and village.

The source of his wealth is not important, whether he stole or embezzled all the monies meant for official matters is no business to anyone. His intention is to satisfy his society’s expectations with the appointment he is given. The growing dissatisfaction in the Nigerian society currently plaguing the country is the act of stock syndrome and no money. Every sector is failing, from the word go, education for the citizenry, no money, electricity, job creation, water supply, rail way lines, road repair and construction, kerosene supply, petrol and petrol supply, gas supply, industrialization health care services and everything in this country, no money. Society members have no role to play in shaping the productivity level of their employees in any formal organization. For our society to turn a new leaf, we must collectively cause a change in our moral decadence towards our members.

In reorientation of our moral decadence, the society elites must be arrow head of the crusade for a more humane society. Idaresit, I. U. (2010) postulated that the list for illegitimate wealth in our country has permitted every fabric of our society and is becoming the canker worm that is set to destroy the economy if a major opposition to its
continued growth is not effect. Punitive measures should be admitted on corrupt individuals or groups regardless of whom they are.

REFERENCES


Perception of Primary School Teachers on Learner-Centeredness Policy in English Teaching

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Abstract

Thailand reformed its educational system in 1999 and adopted a new educational approach, learner-centeredness, which has been applied to all school subjects including English. This research study reports on primary school English teachers’ perception on this new policy. The results showed that participant teachers had positive reactions to the learner-centeredness policy. However, their classroom practices were profoundly different from the expected learner-centered and communicative class. The results of the study call for more support from the part of the government on rigorous and extended teacher training and from other domains in society and for more research studies to investigate teaching methods appropriate to the Thai context and related issues.

Key words: language policy, learner-centeredness, Thailand, primary school teachers

Due to its dominant role in economic globalization, English has become a critical tool for today’s intercultural and technological era. People with high education and high proficiency in English have more access to key information and better opportunities for socio-economic success. In addition, the high quality of human resources can increase the capability of the country to economically compete with other countries at the international level.

With this awareness in mind, the Thai government reformed its educational policy as well as its foreign language policies in 1999. It has passed two educational laws, the Education Reform Bill of 1999 and the Educational Act of 2001 for Basic Education. The main emphasis of the new educational laws is the adoption of learner-centeredness, which requires radical changes in instruction and for the first time in the Thai history. Due to perceived failures in English education in Thailand, the new foreign language policy has been well received from the public. It is hoped that the new policy may be able to help increase Thai children’s language proficiency, particularly communicative skills. The new language policy has caused drastic changes in the Thai educational system and has great impact on teachers who are agents of the implementation, particular primary school teachers. Therefore, it is important to investigate their perception on the new policy in English teaching as well as their classroom practices for future development of English instruction in Thailand.

Rationale for Educational Reform and Foreign Language Reform

Thailand enacted two educational laws, the Education Reform Bill of 1999 and the Educational Act of 2001 for Basic Education, to reform its educational system. This new educational policy aims at developing Thai people as a whole human being and in all aspects: physical and mental health, intellect, knowledge, morality, integrity, and
desirable way of life so as to enabling Thai people to live in harmony with other people. Being smart is not enough; Thai children must also be equipped with morality. They should also be able to know how to acquire information, how to think, and how to solve problems reasonably. Moreover, they should be able to use foreign languages to communicate and create good understanding with people from other countries. The old educational system was believed not to prepare Thai children to cope with economic, social, cultural, and politic changes in this new era due to its traditional teaching styles of “chalk and talk” pedagogy, rote learning, and the focus on teachers as the center of teaching-learning activities (Office of the National Education Commission, 2006). Another main concern for the reform is that the content of the old educational system did not reflect learners and community’s needs. In regards to foreign language policy, learning English for many years, children are not able to communicate in English and are not able to use English to search for information effectively. Thais’ level of English proficiency is low in comparison with other countries (e.g., Malaysia, Philippines, and Singapore) (Wiriyachitra, 2006).

Based on the two laws mentioned, the heart of the reform is learning. The main approach that must be adopted for learning is learner-centeredness. This approach is supported in the 1999 law Section 22 that "Education shall be based on the principle that all learners are capable of learning and self-development, and are regarded as being most important. The teaching-learning process shall aim at enabling the learners to develop themselves at their own pace and to the best of their potentiality" (Commission of National Education, 1999). As such, students must become the main focus of the educational process; teachers’ roles are expected to change from the provider of knowledge to facilitators who support children’s learning. In addition, teachers should encourage learners to search for knowledge from different sources and manage their own learning in order to promote lifelong learning. To reach these goals, in 2001 the Ministry of Education with the cooperation of university teachers, educators, school directors, and experts developed strands and standards of eight main subject areas including Thai, mathematics, science, social, culture, and religion studies, arts, health education, occupation and technology, and foreign languages. The subject areas must follow the core curriculum, strands, and standards provided by Ministry of Education, including English.

New Foreign Language Policy

The ultimate goals of foreign language learning and teaching are to foster learners’ positive attitudes towards learning a foreign language and to develop students’ communicative skills under the learner-centeredness approach (Ministry of Education, 2005a). In the former educational system, English was as an elective subject and introduced at Grade 5. The new laws now make English compulsory course since Grade 1. It is given to learners about two hours a week for Grades 1 – 3 and three hours per week for Grades 4-6. At the end of Grade 12, students are expected to be capable of using foreign languages to communicate in occupational and higher education settings as well as promoting good understanding among people from other countries. Based on school grades, students are divided into four different levels, including preparatory level (Grades 1 -3), beginning level (Grade 4 – 6), developing level (Grade 7 – 9), and expanding level (Grade 10 – 12). Schools are encouraged to develop their own content, curriculum, and materials based on the prescribed core curriculum and benchmark. The benchmark is comprised of four strands, including communication, culture, connection, and community.
Encouraging schools to develop their own content under the set benchmarks is believed to provide teachers opportunity to create flexible curricula that meet the needs of the community and students. Finally, it is required that teachers adopt different teaching approaches, particularly learner centeredness. To support learner centeredness, teachers are to use various teaching approaches (e.g., Communicative Language Teaching, Integrated-Learning, Cooperative Learning, Project-based Learning, Content-based instruction, and Task-based Learning). In addition, different types of assessments, particularly authentic assessment, are to be used to evaluate learners’ learning (Ministry of Education, 2005b).

Learner-centeredness Curriculum

According to Nunan (1993), a learner-centered curriculum is advantageous in many ways. Learners are more active in such curriculum, and learning is enhanced since learners are given opportunities to select content and learning tasks and to evaluate their own learning. The components of learner-centered curriculum are similar to those found in a traditional curriculum, but the focus is different. In a learner-centered curriculum, decisions concerning what will be taught, when it will be taught, and how it will be assessed are made with reference to learners. Other main features of a learner-centeredness curriculum include an emphasis on active involvement of learners in communicating in the classroom, a focus on the use of authentic materials, and the incorporation of learner autonomy along side language goals. It is crucial to include these features when creating a curriculum, particularly learner autonomy. Learner autonomy must be viewed as one essential learning goal since “it is obvious that no students, anywhere, will have their teachers to accompany them throughout their lives” (Littlewood, 1999, p.73). Learners need to learn to be responsible for their own learning because learners are the ones who carry out learning and they need to develop the ability to continue learning even after they finish their formal education. The key to learner autonomy is how to transfer learning responsibility to learners. According to Nunan (1993), “it is a mistake to assume that learners come into our classroom with some kind of natural endowment to choose both wisely and well” (p.2). Teachers must give them helpful tools to enable them to be more independent learners and able to make appropriate choices of learning throughout their course of learning.

To promote learner autonomy, Cotteall (2000) suggests that the curriculum must a) reflect learners’ goals in its language, tasks, and strategies, b) course tasks are explicitly linked to a simplified model of the language learning process, c) course tasks either replicate real-word communicative tasks or provide rehearsal for such tasks, d) the course incorporates discussion and practice with strategies known to facilitate task performance. However, autonomy is seen as a culturally biased method which fits more in Western cultures. To reduce the bias in the concept of autonomy, Littlewood (1999) expands the definition of autonomy and suggests that the redefined concept may be useful to Asian contexts as well as Western contexts. Based on the analysis of Asian cultures (i.e., interdependent self instead of independent self, acceptance of power and authority, and belief in the value of effort and self-discipline), the redefined autonomy brings in the concept of ‘relatedness’ indicating that people need to feel not only autonomous but also part of a social network. Autonomy can be promoted in two ways: proactive and reactive. The former is the traditional concept of learner autonomy (i.e., learners initiate their own learning direction); the later is included to imply that learning directions can be initiated...
and enable learners to organize their resources autonomously in order to reach their learning goal.

Nunan (1993) cautions that learner-centeredness is not an opposite end of teacher-centeredness, but these two practices are relative and associated. Teachers must prepare students to be able to make wise learning choices and gradually become responsible for their own learning. In addition, teachers should train students to assess, monitor, and evaluate their own learning. A learner-centered curriculum, therefore, should provide learners with efficient learning strategies, assist learners to identify their own preferred ways of learning, to develop skills needed to negotiate the curriculum, to encourage learners to set their own learning objectives, to encourage learners to adopt realistic goals and time frames, and to develop learners’ skills in self-evaluation (Nunan, 1994).

Literature Review on Educational Reform and English Language Policy

Several countries in Asia and other parts of the world were forced by the economic and social changes in the globalization era to reform their language policy. The new language policies of these countries, similar to Thailand, reflect needs to improve communicative abilities in this globalization world (Butler & Ino, 2005; Kwon, 2000; Lam, 2002; Nunan, 2003; Su, 2006). English has become a mandatory subject and is introduced to children at a younger age (e.g., Grade 1 in Taiwan and Grade 3 in Korea and China) and with more instructional hours (Kwon, 2000; Lam, 2002; Nunan, 2003; Su, 2006). Considerable amounts of research have been conducted to study the education reforms in those countries as well as the impact of the new language policies on teachers. Teachers have received particular attention since they are agents of policy implementation and are likely to be one main indicator of success and failure of the implementation of the innovation.

The main impact on teachers involves their level of language proficiency. Teachers are required to instruct classroom using communicative approach, while their English proficiency is not adequate (Kwon, 2000; Nunan, 2003). It was found in many studies such as Gorsuch (2000), Li (1998), and Lo, Tasang, and Wong (2000) that teachers failed to reflect the new policy in their classroom practices. Teachers’ perception and resistance to change are often seen as the main cause of failure (e.g., Carless, 1998). Teachers’ perception and attitudes do play some role; however, it was found that teachers’ failure to implement the new prescribed teaching method in classroom was not mainly due to teachers’ negative perception or resistant to change. Li (1998) and Lo, Tasang, and Wong (2000) found in their studies that teachers perceived the change in language policy and expressed rather positive attitudes toward the new teaching method. The main cause of teachers’ failure to reflect the innovation in class is their lack of sufficient language proficiency. Moreover, it was found that another cause of unsuccessful implementation is that teachers did not receive enough training in language teaching (Nunan, 2003). As such, teachers lacked clear understanding of the new teaching approach and lack knowledge of teaching techniques that can be used to instruct a communicative class. Due to partial knowledge, some teachers may have restricted ideas of how teaching and learning can be reflected under such approach (i.e., using games and song singing for communicative approaches, students doing all the talk and all the work in classroom) (Lo, Tasang, & Wong, 2000). Teachers’ misconception and/or partial understanding about the new policy can lead to unsuccessful implementation (Lo, Tasang, & Wong, 2000). In addition, there is a mismatch between curricular rhetoric and reality (Nunan, 2003). Learners need rich input and adequate exposure to the target language in order to be
successful in second language learning. Considering teachers’ current language ability and language environment in an EFL context, positive learning conditions may not be successfully provided.

Based on the challenges and perceived failures in the implementation of new language policies, educators and researchers are calling for context-specific rationale to create appropriate language policy (Aspinall, 2006; Li, 1998; McGroarty, 2003). Aspinall (2006) suggests that it is crucial to understand learning and teaching culture in one’s own context in order to understand why the implementation of the new language policy is not successful. For example, understanding the concept of ‘you-can-do-it-if-you-try’ in a Japanese culture can lead to a better understanding of the reality in English learning through the eyes of parents, peers, and even students themselves and of why communicative language teaching is not successful in Japan. In the same way, it is important to understand that immediate classroom needs (e.g., learners’ needs of explicit grammar explanations) are as important as communicative activities (Silver & Skuja-Steele, 2005). As such, teachers’ failure to reflect the policy may not be considered as unsuccessful teaching. Their actual classroom practices may reflect classroom needs and ‘small culture’ of that particular context. Even though not particularly aiming at foreign language education, McGroarty’s (2005) suggestions on combining many factors “to arrive at a more comprehensive explanation of current developments and derive guidelines for action” (p.10) should be well taken. Through careful examination of social and cultural aspects and classroom activities, good research questions may be obtained, and this will lead to better solutions that fit one’s own teaching and learning culture (Li, 1998).

These mentioned studies shed light on the implementation of language policy and language teaching approaches adopted in those countries. The findings from these studies lead to a better understanding of teaching current practices, challenges, problems, and maybe possible solutions. However, a few studies have been conducted to study current educational situations and problems in Thailand. Among a few of them, Chiangkul (2006) and Wongwanit and Wiratchai (2005) found that the education reform in Thailand progressed considerably slowly; the national education did not improve as it had been expected. Moreover, students’ achievement rates of all areas were low. This could be due to the shortage of qualified teachers, the adoption of prescribed strands and benchmarks with little guidelines, and inadequate support from the government. These two studies provide some information on the current educational situations and problems in Thailand. However, the results of this study give the overall picture of the educational situation and problem in all subject areas and across education levels. No studies have been conducted to specifically investigate primary school teachers’ perception on the new policy and their classroom practices. Such studies if conducted will be very beneficial to English instruction in Thailand. In this current study, therefore, I examined primary school teachers’ perception on the new educational language policy (i.e., learner-centeredness) as well as their classroom practices.

Research questions
This study was conducted to seek answers to the following two research questions:
1. What are teachers’ perceptions on learner-centeredness?
2. To what extent do teachers’ practices reflect learner-centeredness?
Method

This section will describe a research instrument, participants and data collection, and data analysis and coding system. This section is structured accordingly.

Research Instrument

This study is a survey study. The research instrument was a questionnaire, which is comprised of three parts: demographic information, primary school teachers’ perceptions on learner-centered learning, and open-ended questions (See Appendix 1). The initial questionnaire was checked by experts. It was then improved and tried out twice with two English teachers to check its validity. The reliability of the questionnaire was high, indicated by a Cronbach’s alpha of .89.

Participants and Data Collection

The participants were twenty five primary school teachers who taught English in Northeast of Thailand. The survey was administered via phone interview in Thai in order to allow insightful thoughts and answers from the participants. Prior to the interview, the participants were contacted by phone, and the interview time was set up when they agreed to participate in the study. Each interview lasted about 30-50 minutes.

Data Analysis

The data from participant teachers’ perception were analyzed using SPSS for mean and standard deviation. The obtained mean score was compared against the set criteria to determine level of participant teachers’ perception on the learner-centeredness policy. The data from the perceived language proficiency level were analyzed using a frequency count.

Results and Discussion

This section will be divided into two parts. The first part will report on the participants’ demographic information, current English teaching context in Thailand, and teachers’ perceived language proficiency levels. In the second part, the result will be structured to answer the research questions posted.

Participants’ Demographic Information

The participants’ demographic information is presented in Table 1. According to Table 1, the participants were between 23 and 52 years old; 3 teachers were under 30, 10 were between 30 and 40 years old, and 12 were older than 40 years old. Three teachers had a master degree; twenty two teachers had a bachelor degree. Only seven teachers (28%) majored in English and education, but seventeen teachers (68%) had a degree in other subjects (e.g., Biology, Science, and Social Studies). Their teaching experience ranged from 1 to 30 years. Only one teacher reported having traveled to another country (i.e., Malaysia). Only two teachers were affiliated to academic organizations (i.e., Thailand TESOL and English Resource and Instruction Centre (ERIC)).
Table 1  
Teachers’ Demographic Information

<table>
<thead>
<tr>
<th>Age</th>
<th>23-52 years old: under 30, 3; 30-40 years old, 10; Older than 40 : 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td>Master: 3, Bachelor: 12</td>
</tr>
<tr>
<td>Major</td>
<td>English: 5, Education: 2, Others: 18 (e.g., Biology, Science, Social Studies)</td>
</tr>
<tr>
<td>Teaching experience</td>
<td>1 – 30 years</td>
</tr>
<tr>
<td>Experience abroad</td>
<td>Yes : 1 (Malaysia); No : 24</td>
</tr>
<tr>
<td>Academic Affiliation</td>
<td>Yes: 2 (Thailand TESOL, ERIC); No: 23</td>
</tr>
</tbody>
</table>

Current English Education Situation

The teachers who participated in this study reported that their schools introduced English to students starting from Grade 1. There were about 12 – 40 students per class, and teachers had to teach about eight to thirty hours per week (including English and other subjects) depending on the size of the school. Concerning learning resources, 28% (7 teachers) reported that they had a self-access learning center as either one part of their school or in a library at their school; 24% (6 teachers) reported having both a language lab and an English TV program (provided by the Ministry of Education). Twenty percent (5 teachers) reported that there were no any learning resources at their schools. Almost half of the participants (11 teachers, 48%) reported receiving no teaching guideline materials; only fourteen teachers (56%) have received pre-service and in-service trainings concerning how to teach English and how to teach English adopting a child-centered approach; (See Table 2.)

Table 2  
Current Teaching Situation

<table>
<thead>
<tr>
<th>Grade level and age at which English is first introduced</th>
<th>Grade 1, Age 7 lower from Grade 5, Age 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Students per class</td>
<td>12-40</td>
</tr>
<tr>
<td>Teaching load</td>
<td>8-30 hr/week</td>
</tr>
<tr>
<td>Training</td>
<td>Yes: 14 (56%); No: 11 (48%)</td>
</tr>
<tr>
<td>Resources:</td>
<td>Language Lab: 4; Self-access Learning Center: 7; English TV program: 1; Lab and TV program: 6; Self-access Learning and TV program: 1; All: 1; None: 5</td>
</tr>
</tbody>
</table>

Teachers’ Perceived Language Abilities

Regarding teachers’ language ability, the participants were asked to assess their own language abilities (Level 1 to Level 6) adapted from Butler (2004) (see Appendix 2). Table 3 contains the frequency and percentage in six skill domains. Overall, the perceived abilities mostly ranked at Level 3, except speaking and pronunciation (Level 2) (see Table
3). This information seems to suggest that teachers’ perceived language proficiency was relatively low, and the perceived weakest skills were speaking and pronunciation.

Table 3
*Teachers’ Perceived Language Abilities*

<table>
<thead>
<tr>
<th>Skill domains</th>
<th>Perceived Level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading ability</td>
<td>Level 3 A short article containing simple sentences using a dictionary.</td>
<td>11</td>
<td>44</td>
</tr>
<tr>
<td>Writing ability</td>
<td>Level 3 At a short paragraph using simple structure, but consistently making errors</td>
<td>9</td>
<td>36</td>
</tr>
<tr>
<td>Listening ability</td>
<td>Level 3 At a multi-sentence level with some repetition and slow speech.</td>
<td>11</td>
<td>44</td>
</tr>
<tr>
<td>Speaking ability</td>
<td>Level 2 Participate in simple and familiar conversations but with a lot of pauses</td>
<td>11</td>
<td>44</td>
</tr>
<tr>
<td>Grammar knowledge</td>
<td>Level 3 Know intermediate grammar (e.g., relative clauses), but do not quite understand.</td>
<td>11</td>
<td>44</td>
</tr>
<tr>
<td>Pronunciation</td>
<td>Level 2 Pronounce words somewhat correctly but have problem with some sounds.</td>
<td>10</td>
<td>40</td>
</tr>
</tbody>
</table>

In sum, the background information about the participants indicated that teachers’ language proficiency was relatively low. None of them had experience studying or living in a native speaking country. Most of the participants did not major in English; some even mentioned that they had never had contact with native speakers. Similar to other countries having reformed their foreign language policies, English was introduced at a lower grade and at a younger age (Grade 1, at the age of 7), lower from Grade 5 (11 years old).

Research Question 1 *What are teachers’ perceptions on learner-centeredness?*

To assess teachers’ perceptions on learner-centeredness, the participants were asked to rate the level of their opinions on a Likert’s scale of 1-5 (strongly disagree → strongly agree). The mean score derived from the scale of response was interpreted by the range suggested by Kaewpradit (1994). The results are reported in Table 4 together with their mean values and standard deviations.

| Very high/Strongly agree | 4.50 – 5.00 |
| High/Agree               | 3.50 – 4.49 |
| Moderate                 | 2.50 – 3.49 |
| Low/Disagree             | 1.50 – 2.49 |
| Very low/Strongly disagree | 1.00 -1.49 |

Table 4
*Level of Teachers’ Opinions*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Level of Opinion</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>x</td>
<td>S.D.</td>
<td></td>
</tr>
<tr>
<td>1. Learner-centeredness is an effective approach.</td>
<td>4.12 .78</td>
<td>High</td>
</tr>
<tr>
<td>2. Your students like this new teaching approach.</td>
<td>3.92 .64</td>
<td>High</td>
</tr>
<tr>
<td>3. Teachers have to work harder.</td>
<td>3.52 1.19</td>
<td>High</td>
</tr>
<tr>
<td>4. You like this new teaching approach.</td>
<td>3.80 1</td>
<td>High</td>
</tr>
</tbody>
</table>
5. Your school well supports the implementation of this new policy. 4.08 .86 High
6. You agree with SC policy. 3.76 1.09 High
7. You understand the strands, standards, and benchmarks provided by the Ministry of Education. 3.76 .66 High
8. You use SC in your classroom. 3.64 .95 High
9. Your language ability is sufficient to teach English at primary school level. 3.64 .76 High

Table 4 illustrates that teachers have positive reactions to learner-centeredness showing by the participants’ opinions at a high level in all statements. The teachers thought that the learner centeredness was an effective approach and they agreed with this new language policy (\( \bar{x} = 4.12 \) and 3.76, S.D. = .78 and 1.09, respectively). However, the teachers also reported that adopting this policy, they had to work harder at a high level (\( \bar{x} = 3.52, \) S.D. = 1.19). Interestingly, teachers believed that their classroom was learner-centered (\( \bar{x} = 3.64, \) S.D. = .95) and their English was sufficient to teach English (\( \bar{x} = 3.64, \) S.D. = 0.76). In sum, similar to the results from other studies, Thai primary school teachers showed positive reaction to the new language policy. This may be due to their acknowledgement of the problem in English teaching in Thailand, or it is possible that it was difficult for teacher to report negative reaction to the new policy. However, positive reaction may not always be an indicator of successful implementation (Li, 1998; Lo, Tasang, & Wong, 2000). It is important to look at teacher actual practices in classroom.

Research Question 2 To what extent do teachers’ practices reflect the policy of learner-centeredness?

All teachers reported adopting the core curriculum provided by the Ministry of education. The materials the teachers used were commercial textbooks (e.g., Aha English, Smart Kid, English is Fun, and Perfect). Since they used commercial textbooks, teachers did not conduct a needs analysis, write a course description, or lesson plans. Classroom activities and assessment were, therefore, very much depended upon activities and worksheets provided in the textbooks. Two teachers reported using old textbooks (i.e., English is Fun) adopting the old core curriculum because vocabulary and expressions in the new textbook were not familiar and most of the content focused on conversation, which did not prepare students for the test.

In regards to classroom activities, “translating”, “repeating after me” and “reading and writing” are the most common teaching techniques used (25 each) (see Table 6). The participants commented that these techniques were used due to students’ low level of English ability. Only two teachers reported using games, songs, and role plays in their classes. Interestingly, some teachers when asked if they used games, songs, and role plays in class, mentioned that students were not learning when singing songs and playing games.

Table 6

<table>
<thead>
<tr>
<th>Activity</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Translation</td>
<td>25</td>
</tr>
<tr>
<td>Repeat after me</td>
<td>25</td>
</tr>
</tbody>
</table>

Research Question 2: To what extent do teachers’ practices reflect the policy of learner-centeredness?
In addition, most of the teachers (52%, 13 teachers) reported that they used very little English in class. About forty percent of teachers (10 teachers) used English during the activities, and only four percent (one teacher) reported that using English all the time. Interestingly, all teachers reported using English in accordance with two different dialects in class (i.e., Standard Thai and a local dialect). The local dialect, Esan, is spoken widely in this region and by almost all children, particularly in the rural area. The two dialects, Esan and the standard Thai, differ in accent, intonation, and largely on vocabulary. However, the two dialects are relatively mutually understandable. It is quite a common practice in all regions of Thailand that teachers, particularly in the rural area, used children local dialects and the standard Thai interchangeably in classroom. The role of code switching is not clearly understood and needs further investigation.

Based on the result of the study, while reporting that they were highly adopting a learner-centered approach, the participant teachers’ classroom activities reflected a contradicting picture in which traditional teaching styles were adopted (i.e., repeating after me, translation, reading and writing). This, however, should not be a surprise since most of the teachers were not experts in language and language teaching and did not receive training. These teachers relied on their background and beliefs of how language should be taught and learned and on the resources they had at hand.

I reviewed three commercial textbooks for Grades 5 and 6 mentioned by the participants, one by native speaker writers and two by Thai writers. Most of the topics and the content presented in the textbooks reflected the topics suggested by the core curriculum; the topics and the language used were quite appropriate to children’s interest (e.g., my school, my family, my friend, and at the zoo) and level. However, one textbook, written by Thai writers, is found culturally biased; the content and stories are based on Western countries. For example, the chapter about my favorite seasons introduced children to four seasons and activities people do in each season (i.e., winter: ice skating, spring: playing football, summer: sailing a boat, and fall: flying a balloon, picking apples). It would be a challenge for Thai children in this remote and poor region to picture themselves doing these activities because these activities are not common activities in Thailand. One textbook is found using a mixed combination of Thai and Western contexts. The other one was found to be based mainly on the Thai context. These three books seem to follow the teaching method presented in the core curriculum (i.e., presentation, practice, and production) and include integrated activities (e.g., listening-speaking, listening-writing, reading-writing) games, songs, worksheets, and tests.

In regards to guidelines and materials on how to use learner-centeredness in classroom, I was delighted to find that a number of materials (i.e., strands and benchmark of English language teaching, assessment of English language, and managing classroom adopting a learner-centered approach) are available on line through the Basic Education
Committee website (www.obec.go.th), but I was surprised that these materials are not distributed to teachers who are practitioners. Analyzing the content of the materials, however, I found the materials were not practical for primary school teachers because they were written using technical terms requiring a considerable academic background in second language teaching (e.g., needs analysis, authentic assessment). Even though some sample lessons were accompanied, it is hard to see how the guidelines could be helpful to primary school teachers. Primary school teachers look for practical guidance that is applicable to their classroom, not theories and approaches in a journal-article style.

I believe that learner-centered approaches are advantageous for English learning processes in Thailand in many respects. Thai children are shy and they tend to depend on teachers to tell them what to learn, when to learn, and how to learn. However, implementing a new language policy, policy makers should take into considerations of the curricular rhetoric and reality (Littlewood, 1999; Nunana, 2003). It is crucial to be aware of ‘small culture’ (Aspinall, 2006), context-specific rationales (McGroarty, 2003), and classroom needs (Silver & Skuja-Steele, 2005). Appropriate understanding about reality in classroom as well as social and cultural norms may lead to the development of more appropriate approaches to language teaching and language planning for a particular context. It is crucial to understand the context of language in teaching in Thailand. For example, as the results show, teachers have insufficient language ability and language teaching techniques. They rely on commercial textbooks. They use two dialects to teach English. Opportunities for language production outside of classroom are rare. It is more likely to be successful if we start from having a clear understanding of our situation and develop, adopt, or adapt teaching methods that fit our own context.

Conclusion

The results of the study clearly show that the educational reform adopting learner-centeredness approach has not yet been constructive as was expected. Even though the Ministry of Education has invested great efforts into the development of the new core curriculum and teacher training, it seems the education reform in Thailand has not yet been successful after 11 years of the reform. There are several challenges the Ministry of Education needs to take into great consideration. As revealed, even though teachers had positive reaction to the policy, their classroom practices were profoundly different from the expected learner-centered and communicative class.

Implications for English teaching in Thailand and future study

The main implication of this study concerns teacher training. It is vital that teachers should be given more effective training aiming at improving teachers’ knowledge in three main areas: their language proficiency, knowledge of learner centeredness, and teaching techniques. The training should foster appropriate knowledge of the learner-centeredness. It is not that to allow students to choose or choose not to study and it is not that teachers have more free time when students running activities. Also, the training should be specifically catered to teachers’ needs. Teachers at this current state do not need to converse with native speakers. While higher language abilities are the ultimate goal, it is more important to focus on teachers’ immediate classroom needs, which are abilities to teach English at the level they are responsible for. This may help increase their confidence of teaching. As such, the training should be to teach teachers to understand the material they are to teach and to provide teaching techniques they need to successfully teach such
material for particular grades. Finally, the training should be given in a long period, both regularly and consistently.

Another main point needed to take into consideration is materials. As can be seen, teachers rely profoundly on commercial textbooks for classroom activities and assessment. As seen, commercial textbooks vary in terms of content and approach adopting. Ministry of Education, therefore, should take part in book evaluation and selection. Textbooks should be accompanied with a cassette tape and a teacher manual which serves as both a self-study material for teachers and a guideline suggesting how the book should be taught and what activities should be used and run. This suggestion may sound contradictory to Shohamy’s (2005) suggestion on a democratic language policy. However, at this current state in Thailand, I believe this may suit the situation there more since teachers are not yet able to create their own curriculum and materials due to their teaching and extra workload and deficient language ability. Despite my belief that flexible curriculum may fit the needs of learners and community’s needs, providing flexibility for curriculum and material development at this current time may not be feasible in the Thai context. Flexible curriculum and material development will be more appropriate in the future when teachers are more equipped with language ability, teaching techniques, assessment methods, and understanding of the policy, and ready to take charge.

Finally, one interesting finding emerged from this study is the use of two dialects in classroom. It seems the role of code switching in English instruction in Thai context is not clearly understood. More research studies should be conducted to study this area. In the same way, based on the concept of ‘small culture’ and ‘context-specific rationale, future studies should be conducted to investigate, create, or adapt teaching methods that are most appropriate to Thai context. Also, longitudinal empirical studies assessing the impact of the new language approach on students’ actual language proficiency should be conducted. Such information when available will inform us more about the role of the new language policy and possible solution to reduce the gap between reality and our expectations, and the most important thing is the development of children’s language ability. This cannot be achieved without the cooperation of all domains in the country, the government, university teachers, teachers, students themselves, parents, and so on.

In sum, I hope that the findings from this present study on primary school teachers’ perception on learner-centeredness policy may lead to the improvement of English instruction in Thailand and also serve as a starting point for future studies on the development and the implementation of curriculum innovations. Also, the findings may shed light on the needs to investigate effective ways to teach English in Thailand and other countries where English is taught as a foreign language.

Limitations

This study is a small-scale study. Studies similar to this study, but with more participants, should be conducted. Recruiting more participants will lead to more reliable and generalizable results and a more comprehensive picture of the situation. In addition, other information (e.g., actual class observation) should be included in order to triangulate the findings.
References

*ICER 2010: September 10-11, 2010, Faculty of Education, Khon Kaen University, THAILAND*

Appendix 1
Questionnaire

Description: The main objective of this questionnaire is to study the implementation of the new language policy, learner-centeredness, in Thailand. No part of your name and school will be presented. Please provide as much information as you can.

1. Background information
   1. Demographic information:
      1.1 Age: _____________ years old
      1.2 Level of Education: BA  MA  PhD Other:______________________
         Major: English Other:____________________________________
      1.3 Years of teaching: ________________________________________
      1.4 Any time abroad: _________________________________________
   2. Current class:
      2.1 Teaching load: ____________ hours/week
      2.2 Number of students: ______________ per class
      2.3 Materials: ________________________________________________
      2.4 English introduced as a compulsory Subject at Grade_____Age___yrs
      2.5 Use of English in classroom (choose one):
         ( ) All the time   ( )During activities   ( ) When giving instruction:
         ( ) Very little      ( ) None
      2.8 Are you a member of an academic organization? Yes  No
         If yes, what organization?
      2.9 Do you have the following learning resources at your school?
         Language lab      Yes No
         TV program in English
         Self-Access Learning Center    Yes No
      2.10. Did you receive any training? Yes  No
      2.11 Did you receive any guideline on LC from the Ministry of Education? Yes  No
   3. Classroom practice: What is the current practice? How is it different from the class before the policy change?

<table>
<thead>
<tr>
<th>Please describe your…</th>
<th>Before 1999</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Classroom activities

Assessment

4. Did you use the following activities in your classroom? (Make a tick (/))

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Translation</td>
<td></td>
</tr>
<tr>
<td>Repeat after me</td>
<td></td>
</tr>
<tr>
<td>Reading and writing</td>
<td></td>
</tr>
<tr>
<td>Group work</td>
<td></td>
</tr>
<tr>
<td>Dialogue pattern practice</td>
<td></td>
</tr>
<tr>
<td>Pair work</td>
<td></td>
</tr>
<tr>
<td>Telling a story</td>
<td></td>
</tr>
<tr>
<td>Sing a song</td>
<td></td>
</tr>
<tr>
<td>Games</td>
<td></td>
</tr>
<tr>
<td>Role play</td>
<td></td>
</tr>
<tr>
<td>Project-based learning</td>
<td></td>
</tr>
</tbody>
</table>

II. Teachers’ Perception on Learner-centeredness

5=Strongly agree, 4=Agree, 3=Moderate, 2=Disagree, 1= Strongly disagree

<table>
<thead>
<tr>
<th>Statement</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. English is important for your students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Teachers have to work harder.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Your students like this new teaching approach.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. You like this new teaching approach.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Learner-centeredness is an effective approach.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Your school supports the implementation of this new policy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Your are not worried about national tests (Levels 1 and 3).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. You agree with learner-centeredness policy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. You understand the strands, standards, and benchmarks provided by the Ministry of Education.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Your language ability is good enough to teach English.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. Problems & Challenges in implementing learner-centeredness

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

16. Other supports you need in order to successfully implement learner-centeredness

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

17. Do you see any positive effects of the policy on children’s English language learning?

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
18. Comments and suggestions to improve English instruction in Thailand.

Thank you.

**Appendix 2**

**Teachers’ Perceived Language Ability Levels**

<table>
<thead>
<tr>
<th>Skill domains</th>
<th>Frequence</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reading ability: I am able to understand:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1 Short and simple sentences.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Level 2 A short paragraph containing simple sentences.</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Level 3 A short article containing simple sentences using a dictionary.</td>
<td>11</td>
<td>44</td>
</tr>
<tr>
<td>Level 4 A long article with complex sentences and occasional use of dictionary.</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>Level 5 A long article with some trouble of unfamiliar words or expressions.</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Level 6 English texts as reading in my native language.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>25</td>
<td>100</td>
</tr>
<tr>
<td><strong>Writing ability: I am able to write:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1 At a word or a phrasal level.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Level 2 At a sentence level.</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>Level 3 A short paragraph using simple structure, but consistently making errors.</td>
<td>9</td>
<td>36</td>
</tr>
<tr>
<td>Level 4 A short article, but often making errors, having problem with vocabulary, and taking quite a long time to produce complex sentences.</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>Level 5 With no problem but having some problem with making errors and vocabulary.</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Level 6 Like a native speaker.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>28</td>
<td>100</td>
</tr>
<tr>
<td><strong>Listening ability: I can understand:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1 At a word, phrasal level or familiar expressions, e.g., How are you? My name is….</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Level 2 At a simple sentence level with slow speech and some repetition.</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>Level 3 At a multi-sentence level with some repetition and slow speech.</td>
<td>11</td>
<td>44</td>
</tr>
<tr>
<td>Level 4 Most of the listening text and normal speech.</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Level 5 Almost everything in normal speech with some repetition.</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Level 6 Everything like listening in my first language.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>24</td>
<td>100</td>
</tr>
<tr>
<td><strong>Speaking ability: I can:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1 Speak or ask using familiar expressions, such as How are you? My name is….</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Level 2 Participate in simple and familiar conversations but with a lot of pauses.</td>
<td>11</td>
<td>44</td>
</tr>
<tr>
<td>Level 3 Express myself in English in simple language but with mistakes and a lot of pauses.</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>Level 4 Express myself in English with some problem when talking about unfamiliar topics.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Level 5 Speak English fluently with some pauses to choose appropriate words or expressions.</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Level 6 Speak English like speaking my first language.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>24</td>
<td>100</td>
</tr>
<tr>
<td><strong>Grammar knowledge: I:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1 Know basic grammar (e.g., part of speech), but do not quite understand.</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Level 2 Know and understand basic grammar.</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>Level 3 Know intermediate grammar (e.g., relative clauses), but do not quite understand.</td>
<td>11</td>
<td>44</td>
</tr>
<tr>
<td>Level</td>
<td>Score</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Level 4 Know and understand intermediate grammar.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Level 5 Know advanced grammar (e.g., subjunctives), but do not quite understand.</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Level 6 Know and understand advanced grammar.</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>25</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pronunciation I:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1 Cannot pronounce words in English.</td>
<td>2</td>
</tr>
<tr>
<td>Level 2 Pronounce words somewhat correctly but have problem with some sounds.</td>
<td>10</td>
</tr>
<tr>
<td>Level 3 Can pronounce words well with some repetition to pronounce words more clearly.</td>
<td>6</td>
</tr>
<tr>
<td>Level 4 Can pronounce words clearly, but have some problem with stress and intonation.</td>
<td>7</td>
</tr>
<tr>
<td>Level 5 Have a near-native speaker’s pronunciation.</td>
<td>0</td>
</tr>
<tr>
<td>Level 6 Have a native speaker’s pronunciation.</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>25</strong></td>
</tr>
</tbody>
</table>
A STUDY OF ENGLISH READING ABILITY AND MOTIVATION OF MATTHAYOMSUEKSA IV STUDENTS AT THAWARANUKUL SCHOOL USING THE INSTRUCTIONAL PACKAGE PROGRAM TEACHING METHOD

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ABSTRACT

The purposes of this research were to study English reading ability and motivation of Matthayom Sueksa IV students using The Instructional Package Program Teaching Method.

The samples used in this research were 30 Matthayom Sueksa IV students studying in the first semester of the academic year 2010 at Thawaranukul School. They were selected by purposive sampling.

The instruments used in this research were lesson plans using The Instructional Package Program Teaching Method, the English reading ability test and the questionnaire on their motivation in English reading. The data were statistically analyzed by arithmetic mean, standard deviation, and the t-test for dependent samples.

The results of this research indicated that:

1. English reading ability of the students who were taught by using the Instructional Package Program Teaching Method after the experiment was significantly higher than before the experiment at the .01 level
2. Motivation in English Reading of the students who were taught by using the Instructional Package Program Teaching Method after the experiment was significantly higher than before the experiment at the .01 level

Keywords: English reading ability, Motivation in English Reading, Instructional Package Program Teaching Method
Grade 9 Students’ Concepts about Characteristics of Atom

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ABSTRACT

The purpose of this research was to study 270 grade 9 students’ concepts about characteristics of atom in a special large school in Khon Kaen. The surveying used 10 opened concept survey and interview form. The concepts in these instruments included atom definition, atomic structure, characteristic of atom, constituents of atom and electrons surrounding. This paper presents only students’ representation about characteristic of atom. The students were asked to explain characteristic of Iron atom in three states (solid, liquid and gas). The data from concept survey and interview were analyzed and categorized the classifications’ criterion was adapted from Tytler and Preston (2000). The result showed that most students (67.40%) explained the arrangement of particles of substances (particle model) when they were asked to show characteristic of atom in each state. The students did not identify which part of that model is atom. Moreover, some students showed Thomson and Bohr atomic model but their explanations related on only on arrangement of the arrangement of particles of substances.

Keywords: Atom, conception

Introduction

Learning and Instruction in classroom are important for develop and support students to construct their own knowledge. Student come into classroom with existing idea or prior knowledge (Yuruk et al., 2003 ; Schnotz et al, 1999). This prior knowledge comes from interaction with environment and experience in everyday life, reading, watching television and so on (Gilbert, 1982 cite in Samret Sakhao,1997 ; Taber, 2001). Piror knowledge are different from those accept by scientific community, called alternative conception (Yuruk, et al., 2003 ; Schnotz et al, 1999). When student hold alternative conception, it can influence subsequent leaving. As well these alternative conception may be highly resistant to change so we investigate and identify student alternative conception.(Bilgin and Geban, 2006)

Atomic structure is basic concept for others topic in chemistry. Most high school curricula identify the atomic theory as the first topic (Ben-zvi et al., 1986, Sarantopulos and Tsaparlis, 2004). According to Thailand, atomic structure is presented in the 3rd strand : Properties of matter which indicated that Grade 8 students have to discuss and explain element and compound properties. Atom was first introduce in the 4th interval learning standard and the first substandard(Sc. 3.1 No.1) indicate that students in the 4th interval be required to investigate, discuss and explain atomic structure and atomic
history. Many studies showed that there were many alternative conceptions in atom (Papaphotis and Tsaparlis, 2008). For example, some students said electrons were not move and they situated far from nucleus, so it was impossible for them to escape from atom. Moreover, some of them explained why electrons were not drop to nucleus using mechanic theory (Bethge and Niedderer, 1996). Some group of students compare electrons’ movement with planets’ movement in solar system (Unal and Zollman, 2000 ; Tsaparisis and Papaphotis, 2001). Some students said properties of solid atom were different from liquid atom (Ben-zvi et al., 1986). Some students explained that atom may hard or soft depended on state of substances such as metallic atom was hard while atom in liquid is soft (Harrison and Treagust, 1996) However, these research situated in foreign contexts, while there is no research about students’ representation of atom in Thailand. In this study, the researcher will present the survey of students’ conceptions about characteristic of atom in Grade 9.

**Research objective**

To study Grade 9 Students’ Concepts about Characteristics of Atom

**Research Delimitation**

The participants in this study are 270 Grade 9 students in a special large school in Khon Kaen.

**Research Methodology**

This research is based on interpretive methodology using survey research. There were two kinds of instrument were used to collect data namely, ten open-end concept survey and an interview form about atom definition, atomic structure, characteristic of atom, constituents of atom and electrons surrounding. Both instruments were validated by science educators and try out with a group of students. The data was collected during the 2nd semester, academic year 2009 before the participants studied atom in their class. The concept survey was implemented for 40 minutes. The researcher interviewed some students who hold interested concept survey’s responses for 15 minute each.

The students’ responses were categorized into groups which based on the similarity of students’ responses and their reasons (adapted from Tytler and Preston, 2000). The categorization showed below

3.1 Particle Model (P): the students’ responses about the particle model of matter
3.2 Bohr Model (B): the students’ responses about Bohr atomic model
3.3 Bohr Model + Particle Model (B+P): the students’ responses represent both Bohr atomic model and particle model
3.4 Thomson (T): the students’ responses about Thomson atomic model
3.5 Thomson + Particle Model (T+P): the students’ responses represent both Thomson atomic model and particle model
Result and Discussion

This paper presents only students’ representation about characteristic of atom. The students were asked to explain characteristic of Iron atom in three states of matter (solid, liquid and gas). The data from concept survey and interview were analyzed and categorized in Table 1.

Table 1 The students’ conceptions about characteristic of atom

<table>
<thead>
<tr>
<th>Category</th>
<th>P</th>
<th>B</th>
<th>B+P</th>
<th>T</th>
<th>T+P</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>182</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>82</td>
</tr>
<tr>
<td>Percentages</td>
<td>67.4</td>
<td>0</td>
<td>1.11</td>
<td>1.11</td>
<td>0.37</td>
<td>30.37</td>
</tr>
</tbody>
</table>

*no respond / not understanding

Most students (67.40%) were categorized to P category because they presented only the particle model of matter (figure 1)

![Figure 1: students’ responses in P category](image)

The interviewing after finishing concept survey showed that this group of students could not identified position of atom in their drawing. The excerpt showed below

Teacher: In your drawing, which is atom?
Somsri: All of this
Teacher: Where is atom?
Somsri: (she point at the drawing)
Teacher: What are the differences among Iron’s atom in solid, liquid and gas state?
Somsri: Solid atoms are closed together while liquid atoms are far off and liquid atoms are separated.
Teacher: Can you draw an atom?
Somsri: (she draws a small circle)
From this excerpt showed that Somsri showed only the arrangement of particles in three states of matter but she could not explain the characteristics of each particle. She understood that her representation was characteristics of atom in each state. This kind of explanation is alternative conception.

Other group of students (1.11%) hold B category. Their drawings were similar with Bohr atomic model as the following figure (figure 2)

![Figure 2: students’ responses in B category](image)

From the interviewing, it was found that this group of students accepted that their representation came from their textbooks and their teachers.

Teacher: What a drawing is represented for?
Aree: It is atom.
Teacher: What are those ovals?
Aree: They are electrons pathways.
Teacher: What are in the central?
Aree: There are Proton and Electron.
Teacher: What do you think about Iron atom in different states?
Aree: I don’t know. I think they are the same.
Teacher: What is about your drawing? Which state is it represented?
Aree: I don’t know. It could be any state of Iron.
Teacher: How do you know atom look like this?
Aree: I saw in textbooks and my teacher taught me.

Only 0.37% of students hold a B+P category. Their drawings showed a circle was surrounded by a number of ovals. These students presented their Iron atom in three states namely, solid, liquid and gas.
Figure 3: students’ responses in B+P category

Figure 3 showed the movement of electrons and showed the different arrangement of particles in three states of Iron. This group of students ignored the structure and shape of atom.

For T category (1.11%), the students in this group drew electron (positive charge) and proton (negative charge) inside circles. Their representations were similar with Thomson model (figure 4).

Figure 4: students’ responses in T category

This group of students said “It is the same atomic structure in three states of Iron. There are positive and negative ions spreading out in atom”

The last group of students (0.37%) held T+P category. Their representations were similar to Thomson atomic model. However, they presented the different arrangement of particles in different states of Iron. Their main alternative conception was the wrong charges of proton and electron (figure 5).
This research showed that most students use particle model for explaining Iron atom in different states. None of them could represent the scientific atomic model.

**Research discussion and suggestions**

The atomic representations of most students were related to the particle model which showed different arrangement of circles (particle) in each state of matter. This result concurrent with the study of Cokelez and Dumon (2005) about the study of Grade 9-12 students ‘conceptions about atom and molecule. They asked Grade 10 students drew Hydrogen atom while Grade 11-12 students drew Oxygen atom. They found that most students represented an atom as a circle. The students could not explain the structure inside an atom.

Another point from the present study was although some students’ representations were similar to Thomson model; they always presented it as the different arrangement of particles in each state. Up to these points, it is very important for surveying pre students’ conceptions to find out the students’ representations they held before teaching. However, the teachers should use many ways for surveying students’ concepts such as concept survey, concept mapping, drawing and interview. (White and Gunstone,1992)

**Reference**


students’ representations in longterm memory. Chemistry Education Research and Practice 6(3) : 119- 135.


Process of School Curriculum Management: A Case Study of Anuban Nongkhai School, under the Office of Nongkhai Educational Service Area 1

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ABSTRACT

The objectives of this research were: 1) to study the process of implementation on school curriculum management based on school responsibility, 2) to study the principle of management used by Anuban nongkhai School to achieve goal based on school responsibility. The samples using in this study included 43. For data collection, consisted of 1) An In-depth Interview, 2) Focus Group Discussion, 3) Observation and Field Note, and 4) Document Analysis. The instrument using in this study included: 1) the Information Record Form from Document, 2) Field Note Record Form, 3) Observation Form, 4) Guidelines for Focus Group, and 5) Guidelines for Semi-structured In-depth Interview. For Qualitative Data Analysis, content analysis was administered. The research findings were as follows:

1. The study of process in implementing 4 responsibilities of the school curriculum management of Anuban-nongkhai School, consisted of :1.1) the school curriculum management, Anuban - nongkhai School, by implementing 2 types of management as; the first type, the implementation was based on Basic Educational Core Curriculum 2008. The second type: was implemented based on the specification and supplementary of Basic Education Core Curriculum 2008. 1.2) the implementation in class level, implementing the management by organizing across Learning Substance Group of integrated learning unit by integrating the Science Learning Substance, Social Studies, Religion, and Culture Learning Substance, in the unit “Konge River, River of Life,” and integrating the Art Subject with other subjects, 1.3) the support and enhancement in school level, implemented the management by staff development, assigned the teachers to establish ID Plan (Individual Development Plan) and participate in the training, and the school administrators provided academic advice, supported for budget and resources by allocating sufficient budget, assigning the teachers’ teaching as degree they knowledge and competency, and using resources adequately and being worthwhile, and 1.4) the monitoring in school level, implemented the management by monthly conference and indirect supervision, and conference through the head of class line, and head of learning substance group

2. For the study of principle of management used by Anuban - nongkhai School to achieve goal according to its responsibility, in managing the core curriculum according to Anuban - nongkhai School, the administrators used the following principles: 2.1) the principle of practicing as the model, 2.2) participatory principle, 2.3) academic excellence principle, 2.4) good human relation principle, 2.5) social system approach principle and 2.6) the principle of situational management

Keywords: School Curriculum Management,
1. **Background and Significance of the Problem**

   The Office of Basic Education Commission specified the school to use core curriculum of Basic Education 2001 replacing Basic Education Curriculum 2001 since 2011 further, by determining the guidelines of school curriculum management based on core curriculum of Basic Education 2008 for 4 responsibilities as follows: 1) the establishment of school curriculum, 2) the implementation in class level, 3) the support and enhancement in school level, and 4) the monitoring, and taking care of quality in school level. Besides, the major responsibilities of school in developing the school curriculum were specified including the person group advertised by Ministry of Education. The development and application of curriculum would be successful, the efficient curriculum management was required. Every sector had to have clear understanding in curriculum and interest of self development, and be able to practice one’s duty efficiently in order to cause the most usefulness for students’ learning. It was supported by Wichai Wongyai’s (2000) statement that the understanding and giving an importance to school curriculum clearly and correctly, was an important instrument in developing the education quality. Therefore, the planning of curriculum management should be carefully considered to be congruent and related to various factors as well. It was supported by Ittipon Pengrod’s (2009) statement that the administrators should have rational and approach in educational education. Furthermore, they should use the educational management process in order to have efficient school management.

   According to the implementation findings of Anuban Nongkhai School, 2007 school year of the Office of Accreditation of Standard and Educational Quality Assessment (Mass Organization) in Basic Education Level, found that the assessment findings in both of criterion referenced and school referenced, were in “Very Good” level for 9 standards, “Good” level for 5 standards. For the good level standards, included the student aspect, standard 4, the students had competency in analytical thinking, synthesized thinking, critical thinking, and creative thinking, considering, and vision. In standard 5, the students had knowledge and skill based on curriculum. Standard 6, the students had skill in searching for knowledge by themselves, love to study, and develop themselves continuously. For teacher aspect, standard 9, the teachers were competent in organizing the instruction efficiently, as student-centered. For administrator aspect, standard 13, the school had appropriate curriculum with the students and locality, and instructional media facilitating learning. For all of 5 standards, the assessment findings were not very good or excellent as 9 standards. So, they were the school administrators’ problematic standards and challenging problem in Anuban Nongkhai School, very much, so that the school would be excellent in every aspect as well as complete pilot school, the changes or attempt to change as an improvement in both of internal audit and external audit next time. Therefore, in order to achieve goal, Anuban Nongkhai School needed to have good school curriculum management. Therefore, the researcher was interested in studying that what would be implementation process in school curriculum management.
based on responsibility of Anuban Nongkhai School? What rational would be used for accomplishing goal as school responsibility, so that the school would be successful in educational management? The research findings would be used as guidelines in school curriculum management in future.

2. Research Question

What was the process in implementing Anuban Nongkai School for school curriculum management? Which management principle used by school in order to achieve goal based on school responsibility?

3. Research Objectives

3.1 To study process in implementing the school curriculum management based on responsibility of Anuban Nongkai School.

3.2 To study management principle used for school management by Anuban Nongkhai School in order to achieve the school responsibility.

4. Delimitation of Research

4.1 Content delimitation, was a study of process in implementing 4 responsibilities which the school curriculum management specified by the Office of Basic Education Commission including: 1) the school curriculum establishment, 2) the class implementation, 3) the school support and maintain, and 4) the quality monitoring and caring in school level, and management principle used in school management by the school in order to achieve goal based on the school responsibility.

4.2 Population delimitation, the target group of this study included 4 school Administrators, 19 teachers, 9 students, 5 school boards, and 6 students’ parents, total of 43 persons.

4.3 Duration delimitation, the implementation of this study started during December 2009-March 2010.

5. Research Methodology

5.1 Instruments using in the study, the instrument of this research included: 1) the Information Record from, 2) the Field Note Record, 3) the Observation Form, 4) the question guidelines for focus group discussion, and 5) the question guidelines for in-depth interview as semi-structure. For semi-structured interview, its structure guidelines were based on the approach covering process of school management in Anuban Nongkahi School. Then, the developed question guidelines of in-depth interview and focus group discussion, were corrected and improved to be more completed. Later on, they were brought for using in data collection in studied area with flexible application to be appropriate with situation.

5.2 Data collection in this study, was the in-depth interview, focus group discussion, observation, field note recording, and documentary analysis.

5.3 Data analysis, Content Analysis was used.
6. Research findings and discussions

6.1 Process of management implementation in school curriculum based on duty of Anuban Nongkhai School

6.1.1 School curriculum management,

The phase for establishing the school curriculum, found that the school administrators implemented the conference for planning. It was supported by Nit Sammapan’s (2003) statement that the assignment of responsibility in decision making and implementing for the lower level officers of organizational pyramid, was performed for the persons working in closest position with the chief work, with knowledge and understanding of work most, could make decision immediately. But, they had to be responsible as well. It was supported with Certo and Certo (2006 cited I Siriwan Sereerat et.al., 2007). The decentralization as duty, assignment, responsibility, and power, included in one aspect of Organizing, including the planning conference which was one aspect of Planning, considering the technique should be practiced in order to achieve the organizational objective.

The determination of major visions and competencies of students and desirable characteristics, found that Anuban Nongkahi School applied the vision of core curriculum in determining the vision of school curriculum in Anuban Nongkhai School, could cause the school curriculum management to reach the same objective.

The determination of course, found that the determination of course based on core curriculum of the Primary Education 2008, the school administrators implemented based on core curriculum specified by Primary Education 2008, and added the subjects based on community context, school readiness, and students’ need.

The determination of course number, found that for the determination of course number both of basic course number and additional course number, Anuban Nongkai School implemented based on the guidelines of core curriculum specified by Basic Education 2008.

The students’ development activity, found that the school gave an importance to and support the budget in organizing the student development activity very much. The teachers provided opportunity for their students in selecting activities according to their own interest, and organizing the activity to serve the students’ need without forcing them. The students could learn happily. It was supported with Filley House and Kert’ (1961 cited in Supanee Sukritwanich, 2006) statement that, in general, the learning would be accomplished when the person had motivation in learning without being forced to participate in.

The schedule determination, found that, in scheduling time table, the school administrators focused on core curriculum of Basic Education 2008, based on school readiness, and teachers’ knowledge and competency by listening to surrounded problems whereas solving problems in each situation. It was supported with Supanee Sakritwanich’s (2006) findings that for the situational management, the consideration in related factors would be different in each situation. We couldn’t use the same technique
in every situation since the related people were changed or the work objectives were changed as well.

**The course syllabus establishment**, found that the establishment of course syllabus, was the management due to steps in establishing the school curriculum. The school administrators planned assigned duty and responsibility, or organized the organization as well as people to be appropriate with the task. It was supported with Certo and Certo’ (2006, cited in Siriwan Sereerat et.al., 2007) statement that the decentralization into duty, assignment, responsibility, and power, included in one part of Organizing.

**The determination of criterion in completing the program, and measurement and evaluation document**, found that the measurement and evaluation in learning of curriculum in Anuban Nongkahi School, based on core curriculum of Basic Education 2008, specified that the criterion for graduating, was determined by core curriculum of Basic Education 2008.

6.1.2 **Classroom implementation,**

**Establishment of course structure**, found that the establishment of course syllabus including many learning units, the school administered provide the training, the academic division was the speaker in training for teachers. It was supported by the Office of National Education Commission (2003), National Educational Act (1999), and the Revised Issue (the second issue) 2002, Standard 4, and the learning evaluation Section 26.

**Integrated learning unit**, found that Anuban Nongkhai School, organized the integrated instruction almost every subject. The important thing was that the pilot school also offered the integrated learning unit as cross learning substance by integrating the Science Learning Substance, and Social Studies, Religion, and Culture Learning Substance into the unit “Ma Khong, the River of Life.”

6.1.3 **Support and maintain of school level,**

**Staff development**, found that the school administrators organized the organization by staff development, for instance, the teacher training and development for obtaining knowledge in curriculum management of teaching, the media construction, field trip study, the teachers’ strength enhancement, Individual Development Plan by teachers as their own development planning. It was supported with Certo and Certo’ (2006 cited in Siriwan Sereerat et.al., 2007) statement that the staff training and development was a part of Organizing.

**Budget and resource support**, found that the budget and resource were supported. The resource and factor facilitating the support and enhancement for success in applying the curriculum efficiently, were allocated by allocating 60% of total school budget for very teacher as 2,500 bath each, for supporting the knowledge management to be efficient. It was supported with Certo and Certo’ (2006 cited in Siriwan Sereerat et.al., 2007) statement that the school administrators’ responsibility was to allocate the resource and use it with the most efficient and effective utilization.
Participatory implementation, found that the establishment and application in school curriculum of Anuban Nongkhai School, the teachers, school board, parents association and parent network, collaborated very much in curriculum development. It was supported with Peter Drucker’s (1968 cited in Wirot Sanrattana, 2005) statement that the management by objective defining this kid of management as a major thing of management which would be organized for individual to work and have responsibility with full potential.

Academic support, found that the success of curriculum development and knowledge management, was based on academic climate. Anuban Nongkahi School emphasized on the academic management, academic support and enhancement, students’ learning support besides the instruction in regular class by offering tutorial project, and Science Camp Project.

6.1.4 Quality monitoring and control in school level,

Supervision and following up the curriculum usage, found that the supervision and following up of curriculum usage of Anuban Nongkhai School, had the whole and indirect supervision. There were 2 ways of supervision in Anubanj Nongkhai School: 1) the total supervision by organizing the conference for once a month, and 2) the indirect supervision, once a week, through the head of work line for once a month. But, there was no agreement for driving the supervision systematically.

Internal quality assurance, found that Anuban Nongkhai School was implementing various projects according to the standard and indicators of internal quality assurance system. The findings would be concluded in April 2010, and reported to the students’ parents, community, and people who were interested in later.

Research and following up the curriculum usage, found that Anuban Nongkhai School implemented in collecting data related to usage of core curriculum in Basic Education Management 2008 including the problems, obstacles. But, it was waiting for the result of student examination both of the area level and international level such as the scores of LAS (Local Assessment System), NT (National Test), ONET (Ordinary National Education Test). The findings would be concluded for the students’ parents and those who were interested in further.

6.2 Management principle in school curriculum management based on responsibility of Anuban Nongkhai School, found that the school administrators used the role model technique by behaving as an example for the teachers regarding to dressing, and working. Participative Management was used by allowing the teachers, school boards, and students’ parents participate in thinking, practicing, and making decision. The academic excellence was emphasized on the instructional activity management by tutoring, academic camping, using good human relation by interacting, greeting, being friendly with the stakeholders of school appropriately, using management principle based on social system approach by trying to understand working to follow the school administrators’ order. The teachers would do what the administrators ordered them, when they understood the administrators wanted them to do. If they believed that the order was relevant to the organization objective. In addition, id they knew the
positive benefit for themselves, they would follow the order. Moreover, the situational management was administered by listening to the problems in every dimension as well as solving the problem in each situation simultaneously.

7. Recommendations

7.1 Recommendations for applying the research findings,

7.1.1 According to research findings, found that one part of teachers lacked of their work motivation. Therefore, the administrators should use the motivation principle with the teachers by providing their progress and growth in position fairly so that the teachers would pay attention and be willing to practice their duty with full competency.

7.1.2 According to research findings, found that the supervision, monitoring, and following up in curriculum use, the school administrators implemented only organizing the conference for teachers, head of class line, and head of learning substance, which wasn’t systematic or complete cycle. So, the school administrators should visit and observe class, Coaching, Investigate the knowledge management plan, and Recording after class. They should also collaborated with the teachers in determining the needs for being supervised, and create the understanding as well as attitude toward supervision and following up in using school curriculum in appositive way for the teachers.

7.2 Recommendations for conducting future research

This research was a study of process in school curriculum management for studying the process in managing the school curriculum based on school responsibility. Therefore, the research and development should be conducted for developing the school curriculum to be appropriate with the students and parents and community’ need further.

8. References


ABSTRACT

Students with moderate intellectual disabilities (MoID students) have great difficulties to learn mathematical concepts. Teachers often try different ways to maximize students’ learning but mostly put too much attention to select teaching strategies based on task analysis without identifying the focus of the topic’s main concepts and the gap of students’ prior understanding in relation to the lesson content. Lesson Study as an approach of teacher professional development has been reported to have direct impact on teachers’ instruction in classroom (Lo, Pong & Chik, 2005). This study aims to investigate the impact of Lesson Study on the mathematical achievement of MoID students by guiding teachers to re-think about their teaching strategies in an identified teaching topic in Mathematics. Three special schools with 6 teachers of mathematics and 27 MoID students participated in this study. The whole lesson study consisted of four teaching cycles and teachers worked collectively to define the foci of the lesson and sketch out the lesson plan. Four of the participated teachers took turn to teach the research lesson in cycles with one teacher teach while the rest observed. The lesson design was evaluated and refined for the next cycle. On the side of students, pre- and post-tests were conducted to them before and after the research lesson. Results of the post-test revealed that MoID students were capable of learning mathematical concepts with remarkable improvement if teacher could direct their attention to address their learning needs. Furthermore, significant student improvement was found in latter lesson cycles. This became a strong evidence for Lesson Study as an effective approach for teachers to accomplish professional enhancement and as a way to improve their teaching practice leading to successful learning for MoID students.

Keywords: Lesson Study, Students with moderate intellectual disabilities, mathematical achievement, Special School
ICT integration in Primary School Music Education in Hong Kong - Professional Development for Music Teacher: A Contextual Analysis

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Abstract

In 1998, a five-year strategic plan in IT education—the Information Technology for Learning in a New Era: Five-Year Strategy 1998/99 to 2002/03 was launched to promote the use of IT to enhance teaching and learning in Hong Kong. An integral part of the government’s IT policy is that comprehensive IT integration across the curriculum has been encouraged by the provision of ample of resources to implement various proposals in the strategic plan including the acquisition of hardware and software, the development of ICT infrastructure, and the provision of IT training for teachers. This paper describes the context regarding the professional development for music teachers associated with ICT integration in primary school music education in Hong Kong. Through an extensive study of government documents and review of related literature, the provision of professional development in IT for music teachers were discussed and analysed. Findings revealed that, on the average, general IT training for music teachers might be inadequate with regard to the desired level of IT competence. Whereas the provision of music-oriented IT training for teachers as a whole is practically adequate in terms of quantity and content.

Introduction

In 1998, a five-year strategic plan in IT education—the Information Technology for Learning in a New Era: Five-Year Strategy 1998/99 to 2002/03 (the “Strategy”) was launched to promote the use of IT to enhance teaching and learning in Hong Kong (Education and Manpower Bureau 1998a & 1998b). An integral part of the government’s IT policy is that comprehensive IT integration across the curriculum has been encouraged by the provision of ample of resources to implement various proposals in the strategic plan including the acquisition of hardware and software, the development of ICT infrastructure, and the provision of IT training for teachers (Education and Manpower Bureau 1998a & 1998b).

Bauer, Reese and McAllister (2003) point out that “for teaching to be effective when using technology, a thorough understanding of hardware and software is needed” (p. 290). Also, Reninger (2000) argues that “even the most up-to-date computer labs … will do little good if teachers aren’t comfortable using them” (p. 29). In this regard, music teachers need training if they are to make full use of the IT in teaching. In fact, according

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1 A total of HK$3,214 million in capital cost and HK$556 million in annual recurrent cost.
2 Information and Communication Technologies
to UNESCO (2004), IT competence of teachers is the major determinant of both the outcomes of ICT-based teaching and learning in schools and the progress of ICT implementation. Being the key players in the school system, teachers are expected to take up a new role as a guide/facilitator under the Strategy. In this regard, “Teacher Enablement” has been one of the four key components in this strategic document. In fact, to assist teachers transition into the new role, the government pledged to provide a total number of 80,000 training places for serving teachers from 1997 (Hong Kong Special Administrative Region Government 1997, 1998).

Given that a comprehensive knowledge of the current context is crucial in projecting success in integration and for the determination of compatible strategies for implementation at school level, the main purpose of this paper is, through an extensive analysis of government documents and review of related literature, to portray the context of professional development for teachers in relation to ICT implementation in primary school music education in Hong Kong. In the subsequent sections, the present situation regarding the provision of training for music teachers will be presented and discussed.

**General IT Training**

With the launching of the Strategy, the government established a system of in-service professional development for practicing teachers—the IT competency benchmark. Four levels of IT competencies namely “Basic”, “Comfortable”, “Competent”, and “Creative” were established.

... schools will need to have combination of different IT competencies among principals and teachers:

"Basic" level
awareness of the need to take up the new role as a learning facilitator, general computer operation and basic skills such as word-processing, surfing through the Internet, as well as operating readily available educational software. About 18 training hours may be required;

"Comfortable" level
capability to use IT tools and make use of teaching resource available on the Internet and the Intranet etc. in classroom teaching and lesson preparation. About 30 training hours may be required;

"Competent" level
capability to handle computer networking, resolve simple hardware and software problems, make more advanced use of authorware for lesson preparation etc., and understand the characteristics and uses of different IT tools and resources. 30 training hours in addition to those for "comfortable" level competency may be required; and

"Creative" level
capability to understand the functions of computer managed instruction systems, evaluate the effectiveness of instructional computer programs, design instructional materials with use of IT, and choose appropriate IT equipment to meet a school's needs. We expect a teacher who reaches the "creative" level to be able to advise his/her colleagues on a wide range of matters relating to use of IT in teaching, promote an IT culture in the school, develop school-based IT plans or teaching software, and manage the school's IT system. Part-time studies taking up 120 hours over two years may be required. As the training could be fairly intensive, the teachers concerned may have to be partially relieved of their teaching duties during the training period.

*(Education and Manpower Bureau 1998b, p.11)*
Initially the government’s target was to have approximately 15,000 primary school teachers trained by the school year 1999/2000. Through the provision of training at different levels, the government’s target was to ensure the following competencies.

By the 2000/01 school year:
- all teachers reach at least the "basic" level of IT competency;
- all graduates of pre-service teacher education programmes reach at least the "competent" level of competency;

By the 2002/03 school year:
- about 75% teachers reach at least the "comfortable" level;
- about 25% teachers reach at least the "competent" level; and one to two teachers in each school reach the "creative" level.

(Music-oriented IT training)

Since music technology was not included in the course component in the previous programs of music teacher education in the former colleges of education until the establishment of the Hong Kong Institute of Education in 1994 (Yip 2001), music teachers graduated prior to 1995 had neither training nor experience in IT applications as a newly emerging area of music education. From the school year 1998/99, the former Advisory Inspectorate, Hong Kong Education Department started to organise, in small scale, course related to IT in music teaching and learning. According to the information sheet of an eight-hour workshop on Application of Information Technology in Teaching of Music (Education Department 1998) for primary school teachers, the course content included:

1. Introduction to information technology in music teaching
2. Hardware and software basics
3. Music CD-ROM, websites, and wave station
4. Basic concepts of MIDI sequencing
5. Introduction to music notation programme

(Music-oriented IT training)

The large scale provision of music-oriented IT training started from the school year 2000/2001, to better illustrate the content of training courses provided by the Education Department (now Education and Manpower Bureau), Table 1 summarized the training courses/workshops made available to primary music teachers from school years 2000/2001 to 2004/2005. So far, the highest level of training for primary music teachers available was at the intermediate level. Two training courses of 12 hours’ duration focused on Sequencing and on Notation respectively were offered in the two consecutive school years from 2001/2002. Approximately 1240 places were provided for music teachers through the 62 training courses. As of the end of school year 2004/2005, a total number of 155 training courses in music production software (sequencing, notation and multi-track recording) and 65 workshops/seminars in various music-oriented IT applications were organised, and approximately 4792 training places were made available to primary school teachers (Education and Manpower Bureau 2003a, 2003b, 2003c, 2004, 2005). Moreover, regarding the content of these training courses/workshops, the focus had been put on the music production software tools in the early years; however, in last three school years (i.e. from 2002/2003 to 2004/2005), there was a steady trend of moving

3 Computer software for the processing of audio files in digital format.
away from mere training on music production tools towards applications that can be employed directly in classroom teaching and learning, for instance, several different workshops/courses/seminars were organised to introduce the use of ICT in supporting creativity, listening and other activities.

Table 1 Summary of in-service music oriented IT training Courses for primary music teachers

<table>
<thead>
<tr>
<th>School Year</th>
<th>Course Title</th>
<th>No. of Class</th>
<th>No. of Trainee</th>
<th>Class Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000/2001</td>
<td>Workshops on 'The Application of Notation Program in the Teaching of Music'</td>
<td>6</td>
<td>120</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Elementary Workshop on 'The Application of Notation Program - Finale 2000'</td>
<td>2</td>
<td>80</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Workshops on 'The Application of Sequencing Program in the Teaching of Music'</td>
<td>3</td>
<td>60</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Use of Information technology in teaching and learning of Music in Primary Schools</td>
<td>6</td>
<td>120</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Application of Music Notation and Sequencing Programs in the Teaching and Learning of Music in Primary Schools</td>
<td>12</td>
<td>240</td>
<td>12</td>
</tr>
<tr>
<td>2001/2002</td>
<td>Workshop on 'The Application of Sequencing Program in the Learning and Teaching of Music'</td>
<td>1</td>
<td>20</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Seminar on the 'CD-ROM — 'The Treasure of Chinese Music: Huqin'</td>
<td>1</td>
<td>100</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Application of Music Notation and Sequencing Programs in the Learning and Teaching of Music in Primary Schools (Basic)</td>
<td>23</td>
<td>460</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Progressive Courses on the Application of Music Sequencing Programs in the Learning and Teaching of Music in Primary Schools (Inter)</td>
<td>30</td>
<td>600</td>
<td>12</td>
</tr>
<tr>
<td>2002/2003</td>
<td>Workshop on the 'Setting-up of Music Workstation in Music Room'</td>
<td>2</td>
<td>45</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Application of Music Notation and Sequencing Programs in the Learning and Teaching of Music in Primary Schools (Basic)</td>
<td>26</td>
<td>520</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Briefing Session on 'The Musical Instruments E-book'</td>
<td>1</td>
<td>70</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Progressive Courses on the Application of Music Notation Programs in the Learning and Teaching of Music in Primary Schools (Inter)</td>
<td>16</td>
<td>320</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Progressive Courses on the Application of Music Sequencing Programs in the Learning and Teaching of Music in Primary Schools (Inter)</td>
<td>16</td>
<td>320</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>The Application of Multi-track Recording Program in the Learning and Teaching of Music in Primary Schools</td>
<td>2</td>
<td>56</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Workshop on 'Using Internet Resources in the Learning and Teaching of Primary Music and Physical Education'</td>
<td>15</td>
<td>165</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Workshop on 'Using VAMP in Teaching Music'</td>
<td>6</td>
<td>132</td>
<td>3</td>
</tr>
<tr>
<td>2003/2004</td>
<td>The Application of Multi-track Recording Program in the Learning and Teaching of Music in Primary Schools</td>
<td>10</td>
<td>280</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Using Information Technology in Cultivating Music Creativity and Imagination of Students in Primary Schools</td>
<td>4</td>
<td>112</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Workshop on 'Creating Web-based Listening Exercises for Primary Music Teachers (Intermediate)'</td>
<td>4</td>
<td>120</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Workshop on 'Designing a Music Homepage for Learning and Teaching'</td>
<td>6</td>
<td>120</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Workshop on 'The Application of Notation Program in the Learning and Teaching of Music'</td>
<td>4</td>
<td>80</td>
<td>5.5</td>
</tr>
<tr>
<td>2004/2005</td>
<td>Using Information Technology in Cultivating Music Creativity and Imagination of Students in Primary Schools</td>
<td>14</td>
<td>392</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Applications of Multimedia Software and Hardware in Music Education</td>
<td>6</td>
<td>180</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Workshop on 'The Application of Notation Program in the Learning and Teaching of Music'</td>
<td>4</td>
<td>80</td>
<td>6</td>
</tr>
</tbody>
</table>

Discussion

As far as the provision of General IT training for teachers is concerned, findings revealed that the provision seems sufficient in terms of quantity. However, with a closer scrutiny of the requirements of the Strategy, it appears that most music teachers are unlikely to attain a level of competency that can address their teaching needs in music classroom. According to the Strategy, the optimal goal is to enable about 75% teachers to reach at least the “Comfortable” level of ICT competence. Teachers who have attained ICT competence at this level will only be capable of handling simple computer operations, and using application and educational software. Music teachers with ICT competence at this level might encounter difficulties in using technology in music teaching which require competency in using CAI/CAL/CBI software. As only 25% of teachers will be able to attain “Competence” level, it can be projected that, according to this proportion, only one-quarter of all primary music teachers in Hong Kong at best will be adequately trained. Based on this assumption, music teachers who are fortunate enough to have the opportunity to receive training beyond the “Comfortable” level will be few in number. Thus, on the average, general IT training for music teachers under the Strategy might be inadequate with regard to the desired level (i.e. “Competence” level) of ICT competence.

As far as the provision of music-oriented IT training is concerned, findings revealed that over three-quarters of courses offered by the Education and Manpower Bureau (EMB) in the five consecutive academic years from 2000 (i.e. from 2000/2001 to 2004/2005) were related to music production software (i.e. sequencing, notation and multi-track recording), and a majority (over 80%) of courses were of 12 hours duration, organized into multiple sessions of 2.5 to 3 hours and conducted in successive weeks. The 155 music production software-oriented training courses were offered at two levels—elementary and intermediate (59% and 41% respectively of the total courses offered). In addition, 45 workshops/seminars were organized which related to other music-oriented ICT applications. When compared with the music technology training content standards recommended in countries with relatively advanced development such as Australia and the US (Rudolph et al. 1997, Merrick 1998, Music Educators National Conference 1999), the content of the training courses provided by the EMB is comparable to the standards recommended in the above-named countries. Ostensibly, and particularly in terms of quantity, these training courses seem capable of providing music teachers with adequate IT training to meet their needs in teaching with ICT. Therefore, from a pragmatic perspective, the provision of music-oriented IT training for music teachers was practically adequate in terms of both quantity and content.

Conclusion

As reflected in the findings, the current provision of IT training (both General and Music-Oriented) for music teachers as a whole is practically adequate in terms of quantity and content. However, as cited in the literature (e.g. Bauer, Reese and McAllister 2003, Reninger 2000, UNESCO 2004), lack of expertise and confidence was identified as one of the main reasons for music teachers not using ICT in teaching, and whether music teachers will employ ICT in their teaching or not is dependent largely on their IT competency which is directly connected with training. Given the significance of the teacher’s role in ICT integration, government department implementing IT in education policy (i.e. EMB
in Hong Kong) must ensure training provided to teachers at any time should be able to develop sufficient IT competence for addressing their needs in subject integration. In addition, further research and investigation should be conducted to address issues related to music teachers’ technology competency (e.g. determining music-oriented IT competence standard) and the professional development (e.g. the adequacy of training provision) for music teachers.

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The multi-cultural and language studies: Fundamental data in the Thai language learning and teaching as a foreign language, and the knowledge of which direction of thinking and the case study of Thai-Korean culture, Pusan University of Foreign Studies

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ABSTRACT

The first objective of the research on multi-cultural and language studies: Fundamental data in the Thai language learning and teaching as a foreign language, and the knowledge of which direction of thinking and the case study of Thai-Korean culture, Pusan University of Foreign Studies, was to study how people were thinking about Thai and Korean culture between the Korean students whose major subject was the Thai language at the Pusan University of Foreign Studies and the Thai exchange students who were majoring the Korean language. The sampling group consisted of 25 sophomore Korean students who majored in the Thai language and 10 Thai students whose major subject was the Korean language of the first semester and the second semester, academic year 1979. The method of Specific Type was applied.

The following tools applied in the research were the experiment to measure the success in perceiving the Thai culture and Thailand, the questionnaire to test the knowledge and the path of perception in Thai and Korean cultures of the Korean students whose major subject was the Thai language, and the survey of the understanding pertaining to Korean culture and Korea of the Thai students who majored in the Korean language, and the interviewing report resulted from interviewing the Thai students who majored in the Korean language. The researcher utilized the obtained data in the analyzing process by using the descriptive statistics method, and presented in the way of the descriptive narration.

The researcher had found that:
1. The initial data of learning-teaching the Thai language as a foreign language - case study: Thai department, Pusan University of Foreign Studies disclosed the significant information or key factors in learning-teaching the Thai language as a foreign language. They are personal data of students, curriculum, instruction management, project and activities, and existing problems-obstacles in general in learning the Thai language at the Pusan University of Foreign Studies, Thai department. These were included the points of view and suggestions of the instructors and students.
2. The knowledge and path of thinking of the Korean student who learned the Thai language as a foreign language at Pusan University of Foreign Studies, and the Thai exchange students who majored in Korean language as a foreign language disclosed interesting factors such as the level of Korean students’ understanding in the Thai language learning-teaching, integrated knowledge and how the Korean students thought about the Thai customs and traditions beside the result of surveying how well the Thai exchange students understood the Korean culture and Korea. These were also included various points of view and suggestions pertaining to the Korean language and the Thai language learning-teaching management and the path of thinking about Thai culture related with the Korean culture and traditions.

**Keywords:** The multi-cultural, Thai language study, Thai language learning, Thai-Korean culture

**Background and Problem Significance**

Language is the significant national culture reflecting the civilization of a country. People use the language as an important tool for communicating and understanding each other; particularly it is used in the international contact in the fields of political, military, economic, and social affairs, business, education and tourism. Language is the significant device for the above-mentioned activities. So, it is very important and necessary for the Thai society to learn language.

Language has taken part significantly in all kinds of human’s activities as it relates to human’s behaviorism psychologically, sociologically, and humanitarian. Language is like a road for the culture, customs and traditions, civilizations of one generation to another. All those knowledge derived from their ancestors to their today’s community is done via the language. A language is so significant to the community of its own, and a language of one society should be different from another community. It depends on the system of a language. Conclusively we could say that the culture and the language cannot separate from each other while language is a part of a culture. Some sociologist believed that a culture cannot survive without a language. Language helps us to understand the culture, and it formed up itself from culture. Both language and culture entwined each other steadily. They cannot separate. Foreign language learners must learn the culture of the language’s owner at the same time too. One who learns the Thai language will not be good at it if he or she does not understand the Thai culture. To learn the culture of the language owner is a part of how to learn a language in order to help the learning go smoothly, correctly and appropriately.

In the world of globalization new knowledge occurs all the time. To know only one language is not enough in the study or searching for new knowledge. So, it is necessary to learn another language to get access to the other fields of knowledge, to study and understand the other way of life, customs and traditions or for other purposes.
Today, the need of the world’s community is looking for an opportunity to learn more than one language. The human communities in the world have realized of this significance. This is based on Amara Phrasitrathasin (1999, p 14) who said that it is very difficult to make the world a monolingual society. The reason is that people from one society are easily able to get into another society because the transportation and communication are no longer problems so they have a chance to learn the language and culture from outside their own society.

The Thai language is, today, more acceptable worldwide even though it is not an international one. More and more foreigners are interested in studying the Thai as their second language. Several reasons related to politics, socio-economics, trade, education and so on. The teaching of the Thai as a foreign language abroad is increasingly demanded, even inside Thailand itself. As said, by Em-on Chitasophon (1993, p 122), the number of foreigners who want to learn the Thai language as a foreign language are increasing because they want to create a better communication for several purposes. We could see that some foreigners are beginners and some of them had studies the Thai before but all want to understand the Thai better for their job.

Thailand and Korea have had a diplomatic relationship for a long period of time. Friendship between us is excellent and leading to bilateral cooperation in, such as, economics, politics, social affair, education and culture. As the time goes by, the friendship keeps growing. For this reason, both countries have signified in learning language from one another and use them in communication and education (Wilailak Bunkhluap, 2005, p 3). Today, South Korean has two universities teaching Thai language. Han Kook University, Language and Foreign Affairs Department, Seoul (Capital), and another one is Pusan University of Foreign Studies which is in the south of the country. Each university teaches several foreign languages, and the Thai language is one of those. Han Kook University started teaching Thai as a major subject in 1965. Then, in 1982, Pusan University started teaching the Thai language as a major subject. For a reason that Thailand is one of the countries that has established a firm diplomatic relationship with Korea. Pusan University admitted about 40 students majoring the Thai language each year and it included the teaching of Thai culture, and emphasized of the effective usage of the Thai language in real life. So, the Thai is the second language of the Korean students (Jong Bok Jae, 2000, p 3). However, the user of language in communicating with the language’s owner effective and correctly must know the language and culture, and the way of thinking of the language’s owner thoroughly in order that the correct understanding between the speaker and the listener must be created. We could say that we cannot overlook the cultural and social factors, also the suitable format of the language that fits for the people involved because (if not so) it might become an obstacle of using the language effectively. The language relates to the culture and the language is a device transferring the knowledge to the learners to understand the life style and how the people in such society think about something in order that the
learners could learn and adjust or adapt themselves with the society of the language’s owner appropriately. The researcher had a chance to teach Thai classes at Pusan University of Foreign Studies. The researcher has paid much attention for “The fundamental data in the Thai language learning and teaching as a foreign language, and the knowledge of which direction of thinking and the case study of Thai-Korean culture, Pusan University.” The research would yield a great benefit to the researcher as a Thai instructor teaching foreigners the Thai language, and it would also be useful to other Thai instructors teaching the Thai language and culture to the foreigners.

Objectives of the Research

1. To study the fundamental data in the Thai language learning and teaching as a foreign language, Thai section, the case study, Pusan University of Foreign Studies.

2. To study the knowledge of which direction of thinking and the case study between the Korean students majoring the Thai language, Pusan University of Foreign Studies and the Thai exchange students whose major is the Korean language.

Procedure of Research

This research is to study the fundamental data in the Thai language learning and teaching as a foreign language, the case study, Thai language section, Pusan University of Foreign Studies and to study the total knowledge of which direction of thinking and the Thai and Korean culture, the case study between the Korean students majoring the Thai language, Pusan University of Foreign Studies and the Thai exchange students whose major is the Korean language.

Population & Sampling Group

Population

They are all students, Pusan University of Foreign Studies, South Korea and the foreign students of the exchange program studying at Pusan University of Foreign Studies, South Korea.

Sampling Group

The specific method was applied to the sampling group of this research is 25 Korean students of the junior class, majoring the Thai language Pusan University of Foreign Studies, South Korea and a group of 10 Thai exchange students from Srinakharinwirot University, Prasanmit, who studies the Korean language at Pusan University of Foreign Studies, South Korea. Those Thai students are under the exchange student program.
between Pusan University of Foreign Studies, South Korea, and Srinakharinwirot University, Prasanmit, Thailand in the first and the second semesters, academic year 2009.

**Tool of Research**

The following items are the tools used in this research:

1. A test of the Thai culture and Thailand for the Korean students majoring Thai.
2. A test of total knowledge of which direction of thinking and the Thai and Korean culture for the Korean students majoring Thai.
3. A questionnaire for the Korean students majoring Thai.
4. A survey of understanding of the Korean culture and Korea for the Thai exchange students majoring Korean.
5. A questionnaire of knowledge of which direction of thinking and the Thai and Korean culture for the Thai exchange students majoring Korean.
6. An interview applied to the Thai exchange students majoring Korean.

**Data Collection & Analysis**

1. The researcher had conducted the 1-academic year data collection during the first and the second semesters, academic year 2009. The collection and analysis were done through following steps:

   The researcher used six tools in compiling and analyzing data by herself. The quality test was conducted and verified. The target of information collection is the 25 junior-class Korean students majoring the Thai language at Pusan University of Foreign Studies, South Korea, and a group of 10 Thai exchange students from Srinakharinwirot University, Prasanmit, Thailand who studies the Korean language at Pusan University of Foreign Studies, South Korea who had come through a student exchange program between Pusan University of Foreign Studies, South Korea and Srinakharinwirot University, Prasanmit, Thailand.

2. The descriptive statistics was applied in the analysis process. The narration is used in the research presentation.

**Summary of the Research**

1. The analysis yielded the following results:

foreign language, case study, Thai Department, Pusan University of Foreign Studies. It consists of the key element of the data relating to the teaching and learning the Thai language as a foreign language including with the biological background, personnel, students, curriculum, the learning and teaching formats, projects and activities of the
department, total of problems and obstructers in learning the Thai of the students in the Thai Department, Pusan University of Foreign Studies. It also includes the points of view and suggestions from both teachers and students on the learning and teaching. The fundamental knowledge on the teaching and learning the Thai language as a

2. The total knowledge of which direction of thinking and the Thai and Korean culture of the Korean students majoring Thai at Pusan University of Foreign Studies, case study, Thai Department and of the Thai exchange students majoring Korean. It found several kinds of interesting data, for example, the levels of Korean students’ knowledge and understanding the Thai culture and the points of view of the Korean students towards the Thai culture and traditions. It also discovered the survey result towards the Korean culture and Korea of the Thai exchange students majoring the Korean language. This is included with the ideas of instruction managements of both languages, and the total of which direction of thinking towards the Thai and Korean culture.

Debate on the Research Result

According to the result obtained, the debate can be discussed on the following detail:

Firstly, the topic pertaining to the widespread of the learning and teaching the Thai language as a foreign language while the Thai is becoming another Asian language that the foreigners would like to learn. This situation might be derived from tourism, trade, business, investment and economics. Particularly there was high number of Korean students demanding to have the Thai language as their major subject each year at Pusan University of Foreign Studies. From the study, it found that those Korean students required the Thai as the second language because in the future they would apply for a job at the police department, customs department, or would become air hostages, hotel personnel, tour guides, and translators. This includes a number of Korean citizens who wanted to work with the Korean firms in Thailand. That is why they wanted to learn Thai. On the other hand, the Thai students learning Korean as the second language because the pro-Korean fever is widely accepted in Thailand so, there was high number of the Thais visiting Korea as a tour or to study the Korean culture and language.

Secondly, to be successful in learning the second language; not only applied for the Korean students or the Thai students, the learning and teaching of other lessons that were not included in the basic academic textbooks is very important to manage. It is necessary for teachers to possess a clear understanding the main point of a culture and traditions as it is a powerful tool to encourage the learners to learn. The students would pay more attention and anxiously to follow up the stories about culture and traditions, the way of thinking, belief of the society that might be the same or different from their own. The instructors could manage the learning-teaching process in various ways in order to make the learners to thoroughly realize the culture in total. There might be some kinds of songs, movies, or other activities that make people to understand the language, people, society, thinking, belief via the cultural values of the language’s owner. For that the
culture means everything relating to the way of life of the people in a society or community derived from one generation to another.

Somsri Chanwangsa said “A language is a part of a culture and we may count it as a social segment because it is the communication gear linking people in a society. A language might be a mental culture as it could relay a feeling or emotion. The most important is that, a language is an intelligent culture because it is the important tool in thinking, transferring, recording and maintaining the culture. The correlation of a language and culture, as said, in learning a second language or to learn first language of his own must learn the culture too. On the contrary, if one wants to learn the culture wholly, one must learn the language side by side with the culture.”

As based on the research result and the researcher’s experience, there was a keen difference between the Thai-class Korean students who had never been to Thailand and the ones who had visited Thailand. Apparently the ones who had never been to Thailand would have a limit communicative skillfulness and knowledge about Thailand while the ones who used to visit Thailand would have better sense of the Thai language, better understanding about the Thai way, accept the Thai life style, values, belief, custom and traditions whether they are the same or different from the Korean society. They also have brought along the experiences obtained from Thailand in blending the two cultures together appropriately. As having a Thai friend, one would know how the Thais act and not to act in a particular situation, what is acceptable and unacceptable. Therefore, to study the Thai or the Korean as the second language effectively, the outside-classroom learning is very important and be very useful to better understanding the language and the culture of the owner. To gain the experience outside the classroom does not solely depend on the textbook. Today, we could say that the better cultural perception and understanding is - the better teaching-learning a language will be. A learner who understood the culture would be able to behave or choose a suitable word in a particular event or situation. So, we also say that a study of a culture is totally relating to a language.

Finally, it is the intercultural communication. People in the same country and speak the same language sometimes having language problem of understanding own language in the communication. So, there is no doubt for multi-cultural people of different races, and languages would have a problem. This is more serious and complicated factor and it is very difficult to solve or get away from it. From the research, it found that some Korean who had studied Thai and Korean people in general still misunderstood about the characteristics of the Thais, and Thai culture. For example, some people still believed that Thailand is still using an elephant for transportation, the people of Thailand would have dark complexion, body contact between male and female is applicable, or Thailand is a free-sex country, etc. In the same way, some Thai exchange students and the Thais in general still misunderstood about Korean society and culture. For example, the sound of sipping soup from the bowl while having meal, being hot tempered, impolite, unmerciful, etc.
In such case, if the learner did not study and try to understand it would have caused misunderstanding about a society, way of thinking, life style, culture and traditions. It might have caused a conflict, bias, and misunderstanding. It is necessary for learners to study and pay attention on the differences of way of thinking of the language’s owner and the second language learners so that the better understanding would lead us to logical explanation to support the behavior of the language’s owner. As said by Phonphimon Senawong (1998), p 127, the communication problem might occur because of the different cultural and backgrounds and the language that is not the mother tongue of the speaker. The intercultural communication is so significant and dedicated. If not so, communicators would not be able to understand each other and cause a misunderstanding among people in that society and might lead to disunity countrywide. The people of multi-cultural community must learn, understand, and be patient. Particularly the different cultural format must be accepted in order to avoid any kind of conflicts, misunderstanding and subjectivity that may occur. A second language learner should be open-minded to accept the accurate knowledge on the basis of fact and correct the misunderstanding or ignorance that might have been learned from hear-and-say in the past.

In summary, a philosopher’s slogan “Know Them – Know Us” would warn us in learning and understanding our own language, values, thinking, beliefs, customs and traditions and of the people from other countries that we have relationship with.

Biography


Early Childhood Educators’ identity changes in three decades- a case study in Hong Kong

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ABSTRACT

Early childhood education in Hong Kong has developed rapidly in the recent years in Hong Kong. Nevertheless, in the past three decades, the social status of early childhood education and early childhood educators were low comparing with other educational sections. The recent growth in early childhood education in Hong Kong has raised the early childhood teachers’ teacher identity. Teacher identity is an explicit view of self as teacher (Franzak, 2002) and is continually being informed, formed and reformed over time (Cooper and Olson, 1996). It evolves over career stages (Huberman, 1993) and is shaped by different forces: background, school experience, school, reform, and political contexts (Datnow et al., 2000; Sachs, 2000). In this study, my intention is to discuss how these social phenomenon and educational policies enhance three early childhood teachers’ professional identity over three decades.

Keywords: Teacher identity
Developing Teaching Competency via Learning Study: A Study on Research Based Approach for Pre-service Teacher Education

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ABSTRACT

This paper reports the effect of Learning Study module on developing the teaching competency of pre-service teachers in Hong Kong. Learning Study module is a research-based teacher training course that aims to improve pre-service teachers’ lesson preparation skills and their teaching competency. The module is offered for all Year Two students in the Bachelor of Education programme of the Hong Kong Institute of Education. It comprises a series of lectures, consultation meetings and teaching practices that set the theoretical framework for conducting Learning Study. Activities are organized in such a way that pre-service teachers can practice argumentation, decision making and justification while investigating and solving pedagogical problems.

This study aims to validate a theoretical model for exploring the critical successful factors of the Learning Study module for nurturing pre-service teacher’s reflective competency and lesson preparation skills through a quasi-experiment design. 341 pre-service teachers took part in a questionnaire survey. A structural equation model was applied to explore the relationships. Lesson analysis, framework for conducting Learning Study, consultation on lesson design and teaching, lesson implementation and peer observation in the teaching practices are identified to be the critical successful factors for developing lesson preparation skills, teaching competency and reflective experiences of the pre-service teachers.

Keywords: Learning Study, Research-based Teacher Education, Pre-service Teacher Education
A STUDY OF ENGLISH LISTENING - SPEAKING ABILITY AND ATTITUDES TOWARDS LEARNING ENGLISH OF PRATHOM SUEKSA VI STUDENTS USING GENRE-BASED APPROACH (NARRATIVE GENRE FEATURES)

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ABSTRACT

The purposes of this research were to study of English listening-speaking ability and attitudes towards learning English of Prathom Sueksa VI students using the Genre-Based Approach (Narrative Genre Features). The samples used in this research were all of 27 Prathom Sueksa VI students at Wat Phailom School, Amphoe Maung, Changwat Ratchaburi since there was only one class of Prathom Sueksa VI. The instrument used in this research were lesson plans using the Genre-Based Approach (Narrative Genre Features), English listening-speaking test and attitudes towards learning English questionnaires. The data were statistically analyzed by arithmetic mean, standard deviation and Z-test.

The results of the research showed that:
1. English listening-speaking ability of Prathom Sueksa VI students using Genre-Based Approach (Narrative Genre Features) after the experiment was significantly higher than before the experiment at the .01 level.
2. Attitude towards learning English of Prathom Sueksa VI students using Genre-Based Approach (Narrative Genre Features) after the experiment was significantly higher than before the experiment at the .01 level.

Keywords: English listening-speaking ability, attitudes towards learning English, Genre-Based Approach, (Narrative Genre Features)
Sustaining inclusion by focussing on teacher education

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ABSTRACT

This presentation will review some of the major global changes that have occurred in the movement towards more democratic and equitable educational opportunities, that have resulted in a changed clientele in regular schools. It will focus specifically on teacher education for enabling this. While there is enormous diversity in the needs of students and in the way they respond to their teachers and there is a general acceptance that these needs have become more intense, demanding, and more difficult to address, placing considerable demands on teachers; there has been relatively little by way of radical changes to teacher preparation and professional development to facilitate this. Coupled with these changes has been a far reaching paradigm shift in the education of students with disabilities and other special needs. Over the past 40 years there has been an evolution from segregated to inclusive placements, which has resulted in complex and often difficult changes in the way schools operate and in the expectations for teachers. Inclusive education, while initially focusing on providing for students with disabilities in regular schools, now encompasses a much broader definition. Inclusion now refers to all children who may have disabilities or learning difficulties; have been historically marginalized from meaningful education; come from varied multi-cultural and multi-diverse backgrounds; or who are at risk of not achieving to their potential. Policies promoting inclusion must, therefore, be supported by teachers who have the knowledge, skills and competencies and an appropriate positive attitude to sustain this paradigm shift.

Keywords: Inclusion, teacher education, education reform, special education
Leadership Styles and School Effectiveness of Administrators in Saint Dominic School Bangkok Thailand

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ABSTRACT

The aim of this descriptive-correlational study was to determine the significant relationship of leadership styles and school effectiveness of administrators of Saint Dominic School. The indicators for leadership styles of school administrators as perceived by Thai teachers were autocratic, democratic and free rein leadership. Democratic leadership style is the most frequent leadership style employed by the school administrators of Saint Dominic School. The level of school effectiveness is high which was taken from, standardized test results, academic performance of students, attendance of teachers, utilization of information center resources and student participation in school activities.

Findings of the study found out that the leadership styles of school administrators have no significant difference when analyzed by teaching experience and educational attainment of the respondents of the study. Finally, there is no significant relationship between leadership styles and school effectiveness of administrators.

Based on the preceding findings, these conclude that: school administrators of Saint Dominic School frequently employ democratic leadership; the school effectiveness is substantially effective; the leadership styles employed by the school administrators when analyzed by teaching experience and educational attainment were frequently the same; and the influence of leadership styles to the school effectiveness is negligible.

In view thereof, researchers can replicate this study using other factors that may influence the school effectiveness of administrators; school administrators should have awareness of employing a leadership style in right time and situation such as decision making, planning, monitoring and implementing policies and procedures; and having seminars, leadership trainings for school administrators and teachers are very helpful to achieve the goals and objectives of the school and to shape the leadership skills.

Introduction

Leadership is very essential in managing a school. Improvement and transformation is difficult for a school to achieve without leadership. It is the builder of building blocks having its foundation that makes a fascinating and long-lasting building structure desired.

Globally, this leadership styles have in common but different approach as compared in every country. Culture, beliefs, traditions, environment are some of the factors that affect the leadership style in schools. According to Mills (2005), Asian countries particularly in business improves by using types of leadership such as participative and directed leadership which having almost the same characteristics. In educational setting, Asian countries are adopting the best type of leadership according
also from the researches conducted in the West countries, such as autocratic, democratic and transformational leadership. In Jamaica, according to Peterkin (1996) that school leaders influence the effectiveness of teachers and their interest to work for the improvement of schools. It affects the behavior of the teaching and non-teaching staff on how school leaders’ act according to leadership style they are implementing.

In Thailand, according to Gamage and Sooksomchitra (2005) in their study that there are principals and school leaders who are not trained enough for school leadership. SBM was introduced in 1997 wherein decentralization and institutionalization was implemented for the progression of schools and district. According to the study that 45 out of 1000 teachers are stakeholders of the school and were not trained well in the area of education, because of this the progression of change in the country is gradual. Anan (2009) emphasizes that strategic plan must be developed by school administrators to increase their leadership styles in governing a school. In addition, the relationship as school leaders to the teachers and community should be committed in the work with value and integrity. The fear of accepting challenges in school reform is taking place in private or international schools because of the barriers such as culture, traditions, equity and beliefs.

In school setting, the issue in leadership is not new for administrators. The Fact that leadership contributes quality education in the school such as increase in enrolment, teachers are well compensated, students are using updated facilities like books and computers and infrastructure.

**Statement of the Problem**

The application of different leadership styles influence the effectiveness of school leaders or administrators. The three major leadership styles, autocratic, democratic and free rein leadership are common in any business or educational organization. According to Mintzberg (2008), the focus of building a strong institution, a school or an organization is always on leadership. According to Tintavee (2010), the schools especially bilingual or private schools are improving in the eight factors as indicators that measures the leadership styles of school administrators. Exclusively some of the factors needed to pay attention such as human relation and valuing manner to keep the teachers motivated in their chosen profession. Santarra, Parkay and Phanphruk (2003) added that from 274 out of 347 school principals as a response rate revealed that to make an effective school, the leaders should possessed knowledge and skills in principles of administration and management, information technology development, team building, public relations, organizational development, vision-making, and budget management. In regard to personal development, the following areas emerged as critical: public speaking, greater understanding of psychology, human relations, community psychology, social behaviors, and awareness-making.

What possible leadership style would be implemented to achieve its goals?

**Research Questions**

This study determines the significant relationship between the leadership styles and effectiveness of school administrators as perceived by Thai teachers in Saint Dominic School. Specifically, this study seeks answers to the following questions.

1. What is the demographic profile of the respondents in terms of:
1.1 teaching experience
1.2 educational attainment
2. How frequent do school administrators of Saint Dominic School demonstrate the leadership styles when analyzed according to:
   2.1 Autocratic
   2.2 Democratic
   2.3 Free rein
3. What is the level of school effectiveness of administrators in terms of:
   3.1 Ordinary National Educational Tests (O-NET) Results
   3.2 Academic Performance of Students
   3.3 Attendance of Teachers
   3.4 Utilization of Information Center Resources
   3.5 Quality of Student Participation in Activities
4. Is there a significant difference in the leadership styles when analyzed by:
   4.1 teaching experience
   4.2 educational attainment
5. Is there a significant relationship between the leadership styles and school effectiveness of administrators?

Objectives of the Study

The main objective of the study is to determine the leadership styles and school effectiveness of administrators of Saint Dominic School.

Specifically, the researcher aims to determine the level of autocratic, democratic and free rein leadership style of school administrators. In addition, the researcher wants to find out the level of school effectiveness of administrators.

Hypotheses of the Study

Ho 1: There is no significant difference in leadership styles when analyzed by:
   1.1 Teaching experience
   1.2 Educational attainment
Ho 2: There is no significant relationship between leadership styles and effectiveness of school administration.

Theoretical and Conceptual Framework

This study is based on the theory of Lewin (1939) that leadership is driven by behavior. According to Hick (2010) that Lewin identified classic styles of leadership such as autocratic, democratic and free-rein. These three styles are well established though more specific types have been identified since. Leaders should not be confused with managers. Leaders are always managers but the reverse is not necessarily the case. Good leaders will use the style or a combination of styles that best fits the situation. It emphasizes also the interpersonal in leading or directing within the organization. Results of performances are dependent on the coaching or directing of the head of the
organization. The effectiveness of leaders using the performances as a guide for imposing right leadership style should take place in the organization.

The conceptual paradigm shows variables and indicators that the researcher will be using throughout the study. The leadership styles are the independent variable and the indicators under effectiveness of school administration are the dependent variable, teaching experience and educational attainment.

**Leadership Styles**
1. Autocratic
2. Democratic
3. Free Rein

**School Effectiveness of School Administrators**
- Ordinary National Educational Tests (O-NET) Results
- Academic Performance of Students
- Attendance of Teachers
- Utilization of Information Center Resources
- Quality of Student Performance in School Activities

**Teaching Experience**
- Educational Attainment

Showing the Conceptual Framework of the Study

**Research Design and Data Gathering**

The descriptive-correlation method is used in this study. This method is used to determine whether or not there is a relationship that exists between two or more quantifiable variables, and if there is, to what extent or degree the relationship is (Ariola, 2006).
Therefore, this method is appropriate in this investigation the fact that it assesses the leadership styles and the school effectiveness of administrators of St. Dominic in Bangkok.

The respondents of the study are 120 Thai teachers in Saint Dominic School. Purposive sampling was used by the researcher for the study in order to gather data because it is accessible and suitable for the chosen Thai teachers in Saint Dominic School.

The data gathering of the study followed the following steps: seeking permission to conduct the study from the school administrator; distribution of questionnaire to the chosen respondents; retrieval of questionnaires and school data; and tabulation of data for statistical treatment.

**Statistical Tools**

The data gathered through the questionnaires are tallied and treated using the following statistical tools:

*Arithmetic Mean.* It was used to determine the frequency of leadership styles demonstrated and school effectiveness level.

*T – test.* It was used to compare the difference in leadership styles when analyzed by educational attainment of respondents.

*Analysis of Variance (ANOVA).* It was used to compare the difference in leadership styles when analyzed by teaching experience.

*Pearson Product-Moment Correlation Coefficient.* It was used to determine significant relationship between the leadership styles and school effectiveness of administrators.

**Findings of the Study**

The findings of the study are presented as follows:

1. The overall mean for the level of autocratic leadership style was 3.51 or high. Data imply that school administrators held meetings without involving the teachers in the decision making. The teachers are not knowledgeable of the procedures given by school administrators and checking their performances from time to time. Teachers cannot plan, decide or implement for school effectiveness unless administrators approved it.

   Data furthermore show that most of the time, school administrators haven’t trust to any teacher and discipline them with punishment.

2. The overall mean for the level of democratic leadership style is 3.59 or high.

   Data indicate that democratic leadership of school administrators is noticeable when school administrators often encouraging teachers to share ideas for the upcoming
plans or projects; the school administrators calls for a meeting to get an advice and allowing the teachers to participate in the decision making process when something is going wrong in the activities or project. Also, school administrators allow the employees to take the ownership of the project, share their visions; allow helping the colleagues to grow professionally; and resolve any conflicts about the differences of role expectations. Additionally, employees exercise their commitment in their job to the school goals and objectives and use their creativity and ingenuity as solution for organizational problems in the school.

At times, school administrators include one or more employees to determine the task to be done and still make the final decision; they set guidance for the employees.

3. The overall mean for the level of free rein leadership style is 3.57 or high.

Data implies that free rein leadership is perceptible when school administrators were frequently vote or ask the majority for the final decision; allow them to determine the job and accomplishing it for they are knowledgeable of doing such tasks. In addition, school administrators let the employees to define the job given to them and share the leadership to implement procedure and process for the school, also the employees can lead just as the school administrators do.

Sometimes, administrators send information through text, fax, e-mail or memos and meeting are infrequently done and the employees are likely have to act upon it; and the teachers were given the right to determine objectives.

4. The overall mean for the level of school effectiveness in terms of O-NET test result was 2.24 or low; the overall mean in terms of academic performance of students was 4.03 or high; the overall mean in terms of attendance of teachers was 4.89 or very high; the overall mean in terms of utilization of information resources was 3.93 or high; and the overall mean in terms of student participation in school activities was 4.85 or very high.

Data denote that the level of school effectiveness is higher in Thai Language. Higher is the result of standardized test in native language than other subjects (Sparks, Artzer, et al, 1998). This means that teachers did not performed well in strategies or teaching innovations in academic subjects such as English, Math, Science, Physical Education, Social Studies, Arts, and Profession and Technology.

Data also imply that the level of school effectiveness of school administrator is higher in the performance of Grades 1, 2, 3, 4; it means that students are performing well and teachers did the job according to the objective of school by which administrators ordered them to do so. Furthermore, the data shows that in other levels got high level of academic of performance, means that student achievement were almost obtained through the help of school administrators, teachers and parents support for quality education and reforms (Rosier, 2006).

Data furthermore show that the level of school effectiveness of school administrators was very high in every month. It means that the level of accountability of school heads of every department is highly prioritized; teachers are also committed in their tasks driven by school policies implemented by the school administrators (Baaba-
Aidoo and Komba, 2006); and there are only rare problems about substitutions and arranging time schedules for teacher who are taking leave or absences (Polo, 2009).

Date also show that in every month of the school year, the level of school effectiveness is high. This denotes that the school achieves the educational, technical and professional needs of teachers and students. Also, it implies that books, computers and other school facilities are up to date and has no shortage in any materials such as papers, ink, clips, etc.

Finally, data present that in every school activity, the level of school effectiveness is very high. This implies that school administrators and teachers attained the goal that students may expose their talents in extra curricular activities. As well as those teachers are effectively expanding the learning for students through the programs and practicing their good citizen of Thailand by giving respect, love and gratitude to other individuals (Mahoney et al, 2003).

5. When analysis was done by teaching experience, 0.516 is the computed F – ratio or accepted with p-value 0.598 for autocratic leadership style; 0.153 is the computed F – ratio or accepted with p-value 0.859 for democratic leadership style; 0.306 is the computed F – ratio or accepted with p-value 0.737 for free rein leadership style; and the overall computed F – ratio is 0.293 or accepted with p-value 0.746.

The data show that autocratic leadership of school administrators has no significant differences when analyzed by teaching experience. This means that the researcher accepted the hypothesis that the level of autocratic leadership of school administrators as perceived among the group of teachers is likely most of the time.

Also, data show that democratic leadership of school administrators has no significant differences when analyzed by teaching experience. This implies that the researcher accepted the hypothesis that the level of democratic leadership of school administrators as perceived among the group of teachers is frequently the same.

Data furthermore show that free rein leadership of school administrators has no significant differences when analyzed by teaching experience. This denotes that the researcher accepted the hypothesis that the level of free rein leadership of school administrators as perceived among the group of teachers is often comparable.

Overall, the data show that there is no significant difference in the level of leadership styles when analyzed by teaching experience.

6. When analysis was done by educational attainment, -0.820 is the computed t – ratio or accepted with p-value 0.414 for autocratic leadership style; -0.622 is the computed t – ratio or accepted with p-value 0.535 for democratic leadership style; -0.100 is the computed t – ratio or accepted with p-value 0.921; and overall of computed t – ratio is –0.545 or accepted with p-value 0.587.

Data analyzed show that autocratic leadership of school administrators has no significant difference when analyzed by educational attainment. This means that the researcher accepted the hypothesis that between the groups of teachers, the level of autocratic leadership is frequently similar.

Data also show that democratic leadership of school administrators has no significant difference when analyzed by educational attainment. This implies that the
researcher accepted the hypothesis that between the groups of teachers, the level of democratic leadership is often the same.

Data moreover show that free rein leadership of school administrators has no significant difference when analyzed by educational attainment. This means that the researcher accepted the hypothesis that between the groups of teachers, the level of free rein leadership is has no difference most of the time.

Overall, there is no significant difference in the leadership styles of school administrators when analyzed by educational attainment.

7. The significant relationship between leadership styles and school effectiveness of administrators were 0.004 for the computed r – value or accepted with p-value 0.964 in autocratic leadership; - 0.075 for the computed r – value or accepted with p-value 0.414 in democratic leadership; 0.048 for the computed r – value or accepted with p-value 0.601 in the free rein leadership; and overall computed r – value is 0.026 or accepted with p-value 0.781.

This implies that the autocratic, democratic, and free rein have very low influence to the school effectiveness of administrators. This means that a very small variance of school effectiveness of administrators could be explained by the variance of autocratic, democratic, and free rein.

The overall of leadership styles was correlated to the overall school effectiveness of administrators and the computed r-value is .026 or not significant. This means that on the whole, the influence of leadership styles to the overall school effectiveness of administrators is negligible. There are other factors not included in the study could influence the overall school effectiveness of administrators.

Conclusions and Recommendations

Based on the preceding findings, the following conclusions are drawn:

1. Democratic leadership style is the most frequently employed by school administrators of Saint Dominic School.
2. The level of school effectiveness of administrators of Saint Dominic School is highly effective.
3. The teaching experience and educational attainment of Thai teachers are not significant in leadership styles of school administrators of Saint Dominic School.
4. The correlation between leadership styles and school effectiveness of administrators of Saint Dominic School is negligible. This implies that the leadership styles of school administrators slightly influence the school effectiveness of Saint Dominic School
Based on the preceding findings and conclusions, the following recommendations were offered:

1. Research on the other factors that influence the school effectiveness.
2. School administrators are encouraged to employ a leadership style in the right time and situation that is helpful for school growth and student achievement.
3. Educational leadership and school development programs may help school administrators and teachers to improve the quality of education in the school.

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Academic results in English subject of Mathayom 3 students at the Demonstration School of Khon Kaen University (Modindaeng) taught by using the integrated lesson plans that emphasized virtue and morality

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ABSTRACT

This research aimed to study and evaluate the academic results in English subject of Mathayom 3 students taught by using the integrated lesson plans that focused on the virtue called Su-Chi-Pu-Li. The targets were fifty Mathayom 3 students and the study took place during the first semester in 2009. The integrated lesson plans used had the communicative approach. The research was categorized as the pre-experimental design which used one short case study. Research tools included 1) the integrated lesson plans focused on Su-Chi-Pu-Li virtue in which the lesson plans consisted of four units, twelve lesson plans required 20 hours, 2) questionnaires containing fifty questions and the results were statistically analyzed by mean values, standard deviations calculated from the automatic programs.

The results showed that fifty students had the mean value of 79.48%. The number of students who passed 75% of the exam accounted for 30 students. In terms of virtue and morality, Su-Chi-Pu-Li virtue was indirectly added via the activities. Su stands for Suta that means listening, the students were able to concentrate on and follow the speakers or teachers. Chi means Chita. When the students listened to the speakers, they were able to consider and understand the contents of what they have been taught and they can also set up and answer themselves the questions whether they understand them or not. Pu stands for Pucha. When the students were taught and stimulated during the class by using multimedia tools that can make more sense to them. This can proof if they understand the knowledge of what they have been taught. If not, it can lead to questioning skill in terms of language and rationale. Li stands for Likit meaning that the students were able to bring the understanding and then to create the academic outcome in the form of writing. This kind of integrated lesson plan can help students remember and bring the knowledge they have studied so far from many subjects and blend them together in order to produce the highly productive academic outcome. Using Su-Chi-Pu-Li virtue resulted in students with the higher cautiousness, rationale and thinking illustrated in the form of learning and making notes.

Keywords: integrated instructional model, virtue and morality, communicative approach
Introduction

English has recently been the international language and also the communicative tool for exchanging news and knowledge resulting in academically omniscient students who have learned the native speakers' tradition in which they can be worldwide disseminators (Academic department, 2002). According to the National Education Act in 1999, it has shown that the knowledge in all fields can be related leading to the integrated educational management that mainly focuses on the students.

The integrated learning can be related to real life of the students and it make them clearly understood the contents of each subject. In addition, it encourages the students to creatively think out of the frame and use their experience and skills to carefully consider and solve the problems. Therefore, the English department has set up the lesson plan that the students can easily obtain the knowledge and they also practice by themselves so that they would have the socially expected characteristics due to the educational revolution and the external education evaluation in standard 1 and also the national education act in 1999 stating that the learning management should focus on the knowledge and virtue. This is similar to learning management evaluation saying that the Buddhism virtue used along with teaching can be related to the contents of each subject in terms of listening, speaking, reading and writing. This conforms to the Buddhism virtue called Su-Chi-Pu-Li or the heart of philosopher.

Su stands for Suta meaning that listening or careful consideration. Pu stands for Pucha that means asking and Li stands for Likit that means making notes for sustainable knowledge. This virtue is called the heart of philosopher. If the teachers related the heart of philosopher virtue to the lesson along with the practical, the students would obtain the long-term knowledge. According to the educational valuation department report of the school in 2008, it showed that mathayom 2 students who had the grade above 2.5 accounted for the percentage of 71 so they failed English subject. In this case, the basic educational management does expect the students to have not only knowledge and skills but also good characteristics required for the society. Therefore, we have been interested in using the integrated learning management especially in English subject as the core and take the knowledge from other subjects to create the connection between them. As a result, the students are expected to be good, intelligent and happy after being taught by the integrated lesson plan.

Objectives

This research aimed to study the academic outcome in English subject of mathayom 3 students at the Demonstration School of Khon Kaen University (Modindaeng) by using the integrated educational management for the communication emphasizing on the Buddhism virtue called the heart of philosopher, Su-Chi-Pu-Li.

Technical terms
1) Academic outcome means the marks obtained after the test of the students being taught by using the integrated educational management
2) Teaching incorporated in Buddhism virtue means the teaching and learning process in which the teachers relate them to the heart of philosopher virtue
3) Su stands for Suta which means listening, reading or looking at provided contents that can be the beginning of interest
4) Chi stands for Chita which means careful consideration after listening or reading and be able to question
5) Pu stands for Pucha which means asking due to the contents that have been read or listened including the structure of language
6) Li stands for Likit which means collecting the knowledge obtained from the learning activity and taking them to create the academic work with the correct grammar and structure.
7) Students mean those 50 mathayom 3/2 students during the second semester in 2009
8) The learning management for the research has three processes as following; 1. presentation, 2. practice and 3. Production.

**Research field of limitation**

The contents used in this research consist of 4 units, 12 lesson plans that require 20 hours during the second semester in 2009.

**Research methodology**

*1. Target group*
50 mathayom 3/2 students at the Demonstration School of Khon Kaen University (Modindaeng) during the second semester in 2009

*2. Variables*
The academic outcome in English of mathayom 3 students who have been taught by the integrated learning management

*3. Research tools*
3.1 The integrated lesson plan for the communication that contains the Buddhism virtue
3.2 Evaluation tool for example the questionnaire consists of 50 questions
3.3 Research design
This research is the pre-experimental design in which it is classified as one short case study

\[ X \quad O \]

X means the experiment using the integrated lesson plan
O means post-test
Data collection

The academic activity given to the students consists of 4 units and 12 lesson plans. After the students have been taught by using the integrated lesson plans, the results were quantitatively analyzed.

Data analysis

We have received data from the test and it gave out the academic outcome which can be analyzed by the instantly automatic program. The average and percentage were obtained and compared to the standard that the students have the average percentage above 75 and the number of students who pass the test accounts for percentage above 75.

Results

Results obtained from the academic outcome of students

<table>
<thead>
<tr>
<th>Total number of students</th>
<th>Total score</th>
<th>Mean</th>
<th>SD</th>
<th>Average</th>
<th>Number of students passed</th>
<th>The percentage of students passed the test</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>50</td>
<td>39.84</td>
<td>3.11</td>
<td>79.48</td>
<td>32</td>
<td>76</td>
</tr>
</tbody>
</table>

According to the table, we have found that the academic outcome obtained from 50 students had the average of 39.84 out of 50. The standard deviation accounted for 3.11 and the percentage of the average was 79.48. There were 38 students who passed the test, calculated as the percentage of 76 of 50 students.

DISCUSSION

The students who have been taught by using the integrated lesson plan were able to learn, relate and apply the contents of many subjects. As a result, the students have realized the relationship and connection of all subjects they studied and they have had the greater motivation for their study. In this case, we brought the contents of each subject to compose the lesson plan under the same topic, for instance, using mobile phone is dangerous, they could be able to use their art skills to design the graphic organizer and they can specify the advantage and disadvantage of the effect of using mobile phone on the human brain linked to the scientific contents. Therefore, we have set up the integrated academic activity cooperated with the heart of philosopher virtue (Su-Chi-Pu-Ri). After being taught by using the lesson plan cooperated with the Buddhism virtue, the student passed the test.

Furthermore, the heart of philosopher virtue could positively affect the students to have the socially expected characteristics and they can carefully consider what they studied in order to create the academic piece of work. Moreover, Su-Chi-Pu-Ri can be used in series.
Su-Suta: it means listening or looking carefully to consider the multimedia tools and activity while studying

Chi-Chita: after they passed Chi process and they were able to consider the lessons leading to questioning along with teaching. This can make the students practice their systematic thought and encourage them to be good planners.

Pu-Pucha: using Pucha with teaching process could promote students to ask the questions after listening to their classmate's talk. This could establish the good habit of learning for students.

Li-Likit: the students could obtain the core contents of all subjects and then produce the creative academic works that in turn encourage them likely to be more productive students.

When the warm-up activities were considered, we have studied the details of all subjects and relatively integrated them with the contents of English subject, for example in economics, part of social studies, the students were taught about the philosophy of sufficiency so this could be related to reasonable reasons for using mobile phone. Moreover, in basic profession and technology subject, when we talked about gaining the income, we could connect that to the good way of spending free time during holidays productively. In physical education subject, we would be able to talk about the good behaviors that teenagers should follow or type of sports that some people always play. For science, the students were taught about animal's behaviors. All of the above conforms to the report written by the Academic department saying that the integrated study is the multiple blending of more than one subject contents under the same or similar topics, activities or project to understand it more in detail.

The researcher inserted the Suta dharma into the lesson plan. As mentioned above, it means learning by listening, looking or reading, it also plays a key role in the heart of philosopher virtue. Listening could be one of the best possible ways to learn by ears and also reading by eyes. Furthermore, listening help students improve the way of thinking.

When taking the presentation process in consideration, we have also studied the details of other subjects such as physical education in terms of human organs. In science, the students have been taught about the danger of the mobile phone's electrical wave. As well as in social studies, the students learned the appropriate marital life while being students. This has been similar to the study of Panarat Karin (2003) stating that the advantage of the integrated study system is that it could relatively connect the new and old knowledge together leading to long-term understanding. After the students listened, looking or reading on the details during the presentation process in which the we have already organized the activities, we allowed them to think and consider what they have been taught corresponding to Chi which stands for Chita and means thinking whether the information they recently received is right or wrong. We used the questions to re-check and practice them how to think systematically conforming to Kriangsak Charoenwongsak (2003) reported that the one who think and analyze carefully would not immediately draw the conclusion but they would try to find the fact with reasons supported. It is similar to the study of Makarapan Jutarasok (2005) reported that systematic thinking requires the integrated thought and the more the students practice thinking systematically, the more feasible solutions for solving problems come up when they encounter with the unexpected situation in their life.

When we considered the outcome given out during practice process, we have had the activities that can attract their concentration and participation including group and
individual activities. This allows the students to find the answer themselves. The students have been taught about human organs in science, they brainstormed, summarized and think about the meaning of technical terms obtained from the class. In social studies, the students would be able to learn the history of well-known people and they also learned the relationship between air and planting in basic profession and technology subject. They would also be able to understand the use of aspirin in physical education and in this case the students were asked to ask and answer themselves questions under the topic of cause signals and effects. We have prepared the activities for them to attend and practically think by themselves in order to encourage them creating their own concepts of knowledge, similarly to the idea of Wattanaporn Ra-ngabtok (1999) reported that teachers should set up the lessons that can stimulate the students to find out the core concept of the topic by themselves by using different sources of knowledge and it is similarly reported by Umaporn Boonyawiroth (2002) saying that it is beneficial for the students that the teachers let them think and learn on their way and this could also make them happy during the class. When the students could participate in the teaching process of the teachers and take their responsibility together with the teachers to understand the concept of the learning topic, we have used Pucha (asking) to lead the students and encourage them think about the particular topics in detail, according to Gagne and Briggs and Bruner referred in Tidsana Kemmanee's report (2003).

During the production process, we have prepared the process in which the students would be able to produce the piece of work by using all of the knowledge they have learned so far and this illustrates the connection between the subjects when their work is produced regarding the objective of study. This idea is similarly reported by Orathai Moonkum et al (2000) saying that the key idea of the integrated educational management is to let the students practically and directly experience by themselves by doing the activities related to the topic until they are able to understand it by heart conforming to the Kong-Jue's idea; I hear and I forget, I see and I understand, I do and I remember referred in Sakda Chaikitpinyo's report (2006). This has also conformed to the educational act in 1999 stating that planning the integrated educational management needed to insert the core concepts of the subjects into the lesson and also the expected characteristics and dharma for the students need to be put in the lessons as well. We have emphasized the writing skill (Likit) and the students can write the rationale and concepts of the topics correctly via the structure of English grammar. This idea is similar to the Swales and Freak (1997) referred in Wareeporn Chartchana (2004) saying that writing is complicated and it requires the grammar or structure of sentence and the vocabulary to be put in the correct order and this includes the purpose of the author. The students need to think about the knowledge they have studied and use them to create the work.

When we considered the warm-up process, we have taken the heart of philosopher virtue and used it to encourage the students to be able to summarize the topics with the use of language skills, for instance, we have selected English sentences from the interesting works that they produced and those sentences need to be similarly matched to the concept or key idea of other subjects' topics. This means that the students can integrate their knowledge of many subjects with English by using the heart of philosopher virtue, Su-Chi-Pu-Ri.
New findings in the research

The students are more careful and creatively think on their study after participating the activities. After all activities, it showed that the students are the good planners who can produce the marvelous piece of work especially group project. Considering when they asked the questions, there is the higher number of students asking the questions and the questions are remarkably diverse and they relate to the human life. For those teachers who followed the integrated lesson plan using the heart of philosopher virtue, if the students have been given sufficient time to think, looking and listening to the media tools, they would compose very interesting questions.

Suggestions

1. Suggestion for learning management
   1.1 The level of the integration could be connected to the contents of each subject and this depends of the relationship of the courses. The cooperation of the teachers from all subjects is required in order to plan the integrated educational management.
   1.2 To make the understanding to the students, if the students could relate the contents between subjects, the learning management would be very effective.
   1.3 We need to encourage the students doing special research of their interest and the activity regarding the lesson plans.

2. Suggestions for research
   The teachers should well explain the process of the activity for the students to clearly and effectively understand the contents of the subjects.

3. General suggestions
   The other virtue in Buddhism should be taken to study in order to use along with the academic activity and set up the lesson plans.

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Youth on Information Technology Education for Community Based Program

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ABSTRACT

The Youth on Information Technology Education (YITE) is a community based training course program under the accreditation of Technical Education and Skills Development Authority (TESDA).

The project is focuses on the developmental of youth learning for Information Technology Education (ITE) such as Basic Literacy and E Learning. The YITE training course is designed through an exerted effort of making difference to make an innovation to draw out from usual activity for a change. The objectives are: 1. A comprehensive introduction to the cultural, administrative, theoretical, and practical implications of IT in education; 2. An opportunity to apply IT in learning; 3. An introduction to research in IT for education; 4. An opportunity to develop a critical reflective and informed perspective towards IT in education. 5. An opportunity for those wishing to learn in the use of IT in education.

Through the identifying community needs that will influence the reliability, credibility, and total success of the community. The successful plan for target management has to begin at a micro level where involvement requires macro participation in the community. It will be a very viable and effective approach in strengthening literacy campaign for achieving functional literacy for all.

The YITE is done as bridges of knowledge and skills for technological advancement which could create better linkage of opportunities for more productive living. The project connects to the program of ICT-ED for being the heart of bridging the people towards community success.

I – INTRODUCTION

1.1 IT’S ORIGIN AND IMPORTANCE

The greatest challenge occurs in management. People use variety of ways and approaches to meet the demands of the organization for management purposes. Educators are the leaders of the modern society have been transformed into a dynamic system of managing and leading the people.

As we move with the fast – approaching 21st century, we tend to see the multiple changes in a globally competing world. We must be shielded with knowledge and skills to perform better or else we will be left behind by the development that we need.
ICT-ED Institute of Science and Technology calls for many aspect of development. One has to be visionary, transformational, missionary, and techno-developmental institution who can teach people more systematic, pragmatic, technical and technological advancement of the modern times and computer world.

The ICT-ED Institute of Science and Technology formed an organization titled “Youth on Information Technology Education” as community based program. The YITE established last September 05, 2009, organized by the school director and his IT Coordinator to introduce the learners on the modern trends of information based education on the higher level; broaden their knowledge and skills in the use of computer software and other web based information; and promote the proper use of information technology in the field of IT education. The organization objective is geared for the acquisition of basic knowledge, attitudes, values and skills of youth on Information Technology Education that will serve as powerful tool in combating illiteracy opens great opportunities for all individuals.

In YITE Community Based Program, it is very important to identify the community needs, set up priorities and decide an educational response appropriate to ITE program. If the program is already somewhat defined then the community diagnosis offers the opportunity to review community needs and place the program. There are three distinctive phases of community diagnosis: **Situational Community Analysis** focuses on physical, social, cultural and other environmental factors though comprehensive survey; **Community Needs Assessment** – community review of the findings of situational analysis wherein the community starts to identify and articulate community needs or problems, set priorities and determine feasible solutions and **Community Project Definition** is an action oriented choice based on the results of the needs assessment in which the community identifies the project and its goal. (Mullinix, Boonie(ed.) Teacher Training Reference Manual, 1988)

1.2 **A PURPOSE OF THE STUDY**

To study the ICT-ED YITE organization a new strategic direction in the delivery of ITE Programs/Projects wherein the focus on the program/project implementation, curriculum, monitoring and evaluation.

2. **RESEARCH METHODOLOGY.**

To ensure that the project is implemented as planned and scheduled, a project execution must be established. The system must be designed to anticipate problems and resolve them as soon as they occur. It primarily aims at carrying out actual implementation or operations according to plans, specifications, work programs and schedules. A project becomes successful if it will start on time, its resources organized, all work done and its progress checked. The project must be proceeded according to budget allocation, scheduled, and quality oriented. (Alternative Learning System Curriculum Handbook 2004)

In managing the learning in the subject field of IT Education (ITE) focusing on the learner-centered approach, the teacher had to provide the learners with subject content and activities
in compliance with the learners’ interest and aptitudes (Methods of Teaching, G.G. Salandanan 2006).

YITE appears to allocate more time and resources to community services developing ITE projects. Trainees/Students in YITE to be effective, they should develop competence in facilitating learning, developing and using learning materials, applying suitable assessment procedures, teacher-learning strategies and assessment tools and techniques (BNFE Collected Readings for Education 1977)

The Session Guide/ Training Manual serves as reference in teaching. The contents of the session guide may not be enough or sufficient in addressing the needs of trainees and therefore the trainer is free to use additional tools such as equipments, gadgets and other ITE Learning materials that suit to the needs of the target youth. There are steps in Preparing session guide/training manual: problem identification; setting priories; formulation of objectives; identification of activities and setting effective evaluation/monitoring scheme. The parts of the session guide/training manual are Session Title refers to the subject matter to be taught based on the needs of the learners example E – Commerce, Web Development and others; Duration is the period or the number of days that a particular subject matter will be taken up. It depends on the scope of the selected subject matter; Objectives are the statements of what we want to achieve through planned activities; Materials or visual aids or any other similar materials that will help facilitate learning; Reference materials may be handouts, guides, modules or any other materials used as reference in preparing the SG/TM; and Content and Process/Strategy/Activity is always based on the result of the survey on the needs and priorities of the learners. To prepare the content, determine local and global concerns and analyze data. The content of SG/TM for trainers are usually designed around dynamics of youth learning. The learning process is the cycle which involves the four stages of training – activity, analysis, abstraction and application. (Ingalls, John D.” A trainer Guide to Andragogy” Washington D.C., DOHEW 1973)

Monitoring and Evaluation are quality control mechanism used in YITE programs. In monitoring the YITE activity is a process of systematically determining whether the expected inputs, activities and outputs of the project are delivered, conducted or accomplished on time and according to the plan. It is process of providing constant feedback in the efficiency and effectiveness of the project and identifying bottle necks that hinder the implementation process. The functions of monitoring are provides a system of checks to ensure the project is progressing; detects strengths or weaknesses of strategies used while the project is on going; ensures the availability and adequacy of inputs used; and helps to provide information for decision- making with regard to implementing a project so as to ensure the realization of its objectives. The evaluation of YITE activity concerned with gathering information on how well the project achieved its objective for the purpose of determining the worth of the program and providing a reliable basis for making decisions on the project. As an organizational process for improving activities still in progress, it aids management in future planning, programming and decision- making. It can be done for diagnostic, formative, summative purposes. YITE Diagnostic Evaluation aims to identify constraints, difficulties and problems met or perceived by the trainees and trainer of the project. It is done usually at
the beginning and during the implementation of the project. YITE Formative Evaluation is done while the project is still in a fluid or developmental phase. The results are used to revise or improve aspects in order to increase its effectiveness. It is often focuses on process. YITE Summative evaluation is usually done towards the end of a project to determine its effectiveness. (Kinsey, David. Evaluation for Non Formal Education, 1987)

3. CONCLUDE

In the delivery of the YITE projects, it is humanly impossible to do everything and therefore try to: delineate the activity elements; schedule of events and resource requirements; plan a program to evaluate the selected project(s); establish financial resources to use for the implementation and evaluation. Always be reminded to: be sure that deficiencies which need corrective action are not considered a start up only, be sure that the system is actually implemented the way it was planned; and don’t be fooled by initial success but keep up the evaluation from time time, to maintain system performance and to evaluate quality of educational/training under real – world conditions. As the saying goes “the biggest room in the world is room for improvement”. If we know how to help improve our YITE learners through the different modalities/strategies for improving the program delivery towards quality peoples’ satisfaction we should bear in mind and practice “The habits of highly effective people “ by (Stephen R. Conery).

The researcher emphasized the need of the nation building for community service program in the direction of making people great and strong to face challenges of life for the realization of our duty to mankind. YITE Education intended to meet learning needs of high school graduating students as observed in the following statements:

In the public schools, the high cost of equipment and the lack of space limit most Filipino public schools to computer education at the awareness level. One education official, Dr. Pacita I. Habana, described the level of computer education in the public elementary schools by saying that there is "really nothing going on." However, she did say that, while generally there is no formal computer education program at the secondary level, a few schools have used their budgeted funds or other contributions to acquire computers.

“Newspaper Manila Bulletin, Philippines June 2009 p.2”

Community centers were established but these were beset by problems on insufficient resources and status. On learning achievement, the focus was on assessment. As to education for quality life, the recognized but there was difficulty of systematizing and quantifying this dimension. The road ahead should moving from enrolment to achievement; from schooling to learning; from education for children to education for all; from more resources to better and new use of resources; from ministry responsibility to a social responsibility; from advocacy to activity to analysis; and from efficiency to effectiveness.
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Knowledge Management for Supporting Staff of the Faculty of Education, Khon Kaen University

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ABSTRACT

The purposes of this study were to investigate current phenomenon of knowledge management including its problems and ways for supporting staffs of the Faculty of Education, Khon Kaen University. Target group for this research was 38 supporting staffs from the Faculty of Education, Khon Kaen University including 22 public servants and 16 university staffs and civil servants. Data was collected by observation, document study, interview and focus group discussion. It was consequently analyzed by content analysis technique before presenting through conceptual framework. Findings were presented through the format of descriptive analysis report.

Research findings were found as follows:

For determining goals (visions), the Faculty of Education set the goals based on the policy of Khon Kaen University and those of its own as well. The goals were jointly determined focusing on developing task and its procedure for supporting effective work and all department members could internally change their role if need. Problem of previous performance was submitted as the main theme of determining organization’s goals considering with internal and external circumstances. The goals were clearly found including 1) work development, 2) human development, 3) organization development and 4) development for being learning organization.

For learning and sharing experiences, staffs frequently learned and shared knowledge with each other through conversations, questions, sharing and discussion while they were working. Work experiences were also distributed to colleagues as well as the knowledge from training, meeting and seminar which were seen each participation report at monthly meeting of staffs.

For creating knowledge base, staffs built knowledge base by collecting result of sharing and learning activities through new thing and presenting outcome on website. The method of collecting and storing knowledge was systematically made in the format of data folder, portfolio and document folder before classifying and storing in data file format. It was also found work manual, service manual and the application to other related task.

Problems and obstacles of knowledge management were found that staffs had not still understood well for its concept. The process of knowledge management was not organized continuously and lacking of serious supervision. Staffs were hardly found the cooperative leaning as well as the individual recognition in knowledge management. The overload task could be affected to time for thinking about knowledge management. To classify various and a large number of task, it could be easily found the problem of confusion, inconvenience and difficulty of data usage.

Recommendations for knowledge management; ways for conducting knowledge management should be followed 8 steps including 1) determining policy, 2) creating plan of knowledge management, 3) learning and sharing, 4) collecting and workshop/seminar, 5) creating knowledge management in each department, 6) scheduling working calendar, 7) data collecting and note, and 8) storing in central data warehouse and participating the project of “Show and Share”.

Keywords: Knowledge Management, Supporting Staff, The Faculty of Education
1. Introduction

Background and Significance of the Problem

In recent time, the global society had rapid changes as Information Society with quickness and differences from the past. The existed trend was a change which couldn’t be able to predict its future as former pattern. The approach in which we had to think out of the box for new things, and comprehend the condition of rapid new age competition. Knowledge played an important role for influencing both of the cause of changes and the adjustment for living with those changes. In organization level, the existing knowledge could be able to make the organization include development in every aspect. The important thing included the support for organization to manage the activity leading to objective and vision more convenient and quick. The characteristic of new organization in modifying the organization to keep pace with the world, included the organization searching for opportunity in managing the changes systematically. In order to adjust the organization system, it should be developed so that the organization would move toward with full potential. For recent organization, the management system needed to be developed as: 1) Learning Organization consisted of Leadership, Team Learning, System Thinking, 2) Total Quality Management (TQM), 3) Continuous Process Improvement, and 4) Knowledge Management. The Learning Organization was an organization extending the competency level and potential improvement for creating its performance as well as future continuously. People in the organization were also learning with each other regularly (Wirot Sanrattana, 2005).

There were 6 objectives of application in knowledge management in the university as follows: 1) to increase the quality and quantity in creative performance of organization, 2) to help each staff to gain better performance, increased returned benefit in long term, and be an instrument for persons to work happily, 3) to create the work climate with enthusiasm, happiness from developing new creative ideas in one’s own duty, 4) the instrument for developing people in organization so that they would be dynamic, competent in learning and adjusting oneself by not being afraid of changes, 5) the instrument in collecting knowledge and intellectual capital of organization, and 6) the effect on organizational culture change (Wijan Panich, 2003).

Khon Kaen University is a higher education institute of government, producing graduates in order to develop the country and Northeastern Region. Its implementation was based on missions including: the research studies, academic service, art and culture support and maintain. For driving the university development in many aspects, it was depended on efficient organizational management by reforming the management system to be appropriate with context of changes focusing on accomplishment of mission. The strategic objectives were set in order to have efficient organizational management, especially the Learning Organization being able to serve the changes of quality information technology for making decision. Specifically, the instrument of knowledge management for utilizing the body of knowledge in organization and persons, as benefit for driving the developmental strategy in university, persons, work, and innovation for
increasing the added value in sending the product of Khon Kaen University, and a part of mechanism in establishing the assurance for official working called Public Sector Management Quality Award (PMQA).

Faculty of Education, is a work unit in Khon Kaen University, supporting developmental plan for Northeastern Region, to be more complete. The Dean’s Office, Faculty of Education, is a work unit as a center in work practicing of Faculty of Education, being responsible for cooperating with different work units and people both inside and outside of the Faculty, to support, service, and facilitate Faculty of Education, to achieve the mission, strategic plan, and goals in different aspects. For supporting staff, under Faculty of Education, was a major power in working in cooperating with various work units and persons both inside and outside the faculty, for supporting, servicing, and facilitating the Faculty of Education, to accomplish the mission, strategic plan, and goal. Consequently, they had to be knowledgeable, competent, and experienced in their work, able to solve the occurred problems, and transfer experience from persons themselves for sharing with each other, improving their work, and developing the work of their office/organization with more efficient.

2. Research Questions
   2.1 What would be the current situation and problem in knowledge management of supporting staff, under jurisdiction of Faculty of Education, Khon Kaen University?
   2.2 What would be the guidelines for knowledge management appropriate with supporting staff, under jurisdiction of Faculty of Education, Khon Kaen University?

3. Research Objectives
   3.1 To study current phenomenon and problem in knowledge management of supporting staff, under jurisdiction of Faculty of Education, Khon Kaen University.
   3.2 To study guidelines in knowledge management of supporting staff, under jurisdiction of Faculty of Education, Khon Kaen University.

4. Research Methodology
   This research was Qualitative Research as a Case Study including 2 phases as follows:

   Phase 1: The current situation and problem in knowledge management of supporting staff, under jurisdiction of Faculty of Education, Khon Kaen University, were studied. The researcher sent the permission document to the administrators in collecting data, and asking for cooperation in data collection from the staff. Then, the appointment was made with the staff as informant for collecting data. The instruments consisted of the In-depth Interview, and Observation, Recording, Documentary Study, Unobtrusive Measure for various phenomena by using photograph, and audio tape of informants who were supporting staff, under jurisdiction of Faculty of Education, Khon Kaen University, from 3 work groups: the administration and management work groups, 2) the academic service and educational service work groups, and 3) the planning and asset and property
management work groups, including the officials and university officers, official officers, 38 persons.

**Phase 2:** The guidelines for knowledge management were studied by Focus Group Discussion, the researcher organized Focus Group Discussion to search for guidelines in knowledge management of supporting staff, under jurisdiction of Faculty of Education, Khon Kaen University, by 9 participants including: the administrator representative of Faculty of Education, experts from outside of the Faculty of Education, the secretary of Faculty of Education, and 6 persons of the head of work group/staff representative. The researcher use recommendations and guidelines in knowledge management from the interview of supporting staff, under jurisdiction of Faculty of Education, Khon Kaen University, as the issues for being discussed by participants in focus group discussion.

Variables included the current phenomenon and problem in knowledge management of supporting staff, under jurisdiction of Faculty of Education, Khon Kaen University, all of 3 aspects: 1) the goal determination in what to be done, 2) the experience sharing, and 3) the knowledge bank, the experiences from working together were integrated and shared with each other.

**Target Group,** the researcher determined the target group by purpose, including: the supporting staffs, under jurisdiction of Faculty of Education, Khon Kaen University, 3 work groups: the administration and management, the academic service and educational service, and the planning and property management, for 38 persons. They were 22 university staffs, and 16 official staffs.

**Quality investigation of instruments,** performed by investigating in quality of the Observation Form, Documentary Study, and Structured Interview Form, under supervision and control by thesis advisor. For construct validity, content validity, and appropriateness of language usage, improved under suggestions of the experts. The instruments were tried out. Data were collected.

**Information check,** performed by Data Triangulation including: the investigation of data source, the sourced to be considered for investigation including: the time, place, person. In addition, the Methodological Triangulation as triangulation was performed by collecting data from different techniques to collect the same topic. In this research, the researcher used the technique in observation, interview, and documentary study. The researchers interviewed from the arranged questions, by themselves whereas studied information from supplementary document. Then, the informants were asked to read the report for reviewing the information.

5. **Conclusions of findings**

5.1 **Objective determination (Vision),** found that the objective determination of work unit in knowledge management,
was performed by focusing on policy of Khon Kaen University, and Faculty of Education. The administrators had policy in organizing the monthly conference both of instructor staffs, and supporting staffs, work group conference, head of work group conference, so that they would share and learn together. Each person’s knowledge would be shared with one’s co-workers. The objectives were collaboratively determined by emphasizing on the development of work, and working technique, so that it would be an efficient work. Every one could work for the other’s. Faculty of Education established the annual plan, seminar conference for brainstorming from the inner staffs of Faculty of Education for determining goal (vision) of work unit including obvious objectives as: 1) the objective of work development, 2) the objective of staff development, 3) the objective of organizational development, and 4) the objective of work unit development as Learning Organization. Furthermore, the staffs comprehended in knowledge management as integrating the knowledge from persons, information technology, thinking, behavior, and individual’s experience. They also saw the importance of knowledge management that it was useful, and were able to integrate various kinds of knowledge as systematic management for organizational body of knowledge.

5.2 Sharing from experience,

found that the staffs shared and exchanged their knowledge with each other regularly by talking, asking, sharing, consulting, during their work time, and transferred their work experience as well. They summarized their knowledge from training, conference, and seminar as a report presenting to their head of work group in order to present to the monthly conference of supporting staff, head of work group conference, each work group conference, small group conference. There were conferences between the administrators and supporting staff by organizing the monthly work group conferences. They shared their ideas for solving the occurred problems in their work group. Besides, Faculty of Education also established the project called “Learning and Sharing,” for exchanging and learning in their monthly work which was the association with activity of project by focusing on implementation in public relation of the Faculty. The information was informed. In addition, the news of various topics of public relation, were informed by an e-office system. Moreover, the Faculty sent the staff to participate in Show and Share Project of Khon Kaen University, as a shared learning.

5.3 Knowledge bank constructing,

found that the staffs created knowledge bank by sharing and integrating the performances from shared learning conference, modifying attitude, learning new things in organization, presenting performance through web-site by collecting data systematically and keeping in portfolio, and system in collecting performance in group as data file keeping in computer both in KKU-FMIS systems and data base in e-office system. For existing knowledge, was extended in various ways as: the advertisement for information or knowledge in the web board so that the other people could be able to apply knowledge further. The knowledge sharing in Learning and Sharing Project, was performed to increase knowledge and skill in work practice as well as improve their working technique which could help every one to work for another one. The establishment of handbook for
work practice, handbook for service providing, which could be used for the other kinds of similar work. The knowledge was systematically kept as data file, document file, and information file in computer set by classifying according to the kinds of knowledge ranking in priority of it. The information could be linked and communicated to each other thoroughly. So, the staffs could immediately retrieve it for their usage.

5.4 Problem and obstacle of knowledge management,
found that the supporting staffs, under jurisdiction of Faculty of Education, Khon Kaen University, didn’t truly comprehend in knowledge management. The implementation of knowledge management lacked of continuity, and wasn’t monitored or following up strictly. The supporting staffs didn’t collaborate in learning together. The cooperation and acceptance by the persons of knowledge management, were very few. The staffs had too much work until they didn’t have enough time for knowledge management. In addition, various kinds of position description grouping caused difficulty and confusion in finding it for usage.

5.5 Guideline in knowledge management,
found that the supporting staffs, under jurisdiction of Faculty of Education, Khon Kaen University, recommended guidelines for knowledge management that: the training for providing knowledge in knowledge management for supporting staffs, should be organized since they didn’t have sufficient comprehension in knowledge management. They should search for knowledge in preparing their readiness for keeping knowledge systematically. There should be learning both inside and outside their work units. There should also be the persons responsible for knowledge management by determining and assigning in each work group clearly. In addition, the Office of Quality Assurance should be assigned for bringing the knowledge management as one part of Internal Quality Assurance. Furthermore, according to Focus Group Discussion including the administrators of Faculty of education, outsider experts, secretary of Faculty of Education, and the head of work group/staff representative, the guidelines for knowledge management, were obtained as follows: 1) the policy should be determined, 2) the knowledge management plan should be established, 3) there should be shared learning, 4) there should be collection, training/seminar providing, 5) KM in work group should be organized, work practice schedule should be performed, and activity should be clearly done, 6) the data should be kept and recorded, and 7) the data should be kept in central bank, and 8) the Show and Share should be participated in.
6. Discussions

6.1 Current phenomenon in knowledge management of supporting staff, under Faculty of Education, Khon Kaen University

1. For objective determination (vision), the research findings found that the objectives were determined according to policy of Khon Kaen University, and Faculty of Education in which the vision of work units were clearly specified. Besides, the staffs were encouraged to be future oriented. There was a congruence between vision and mission obtaining by shared determination among the administrators, instructors, and supporting staffs. There were obvious public relations. There were shared goal setting by emphasizing on development of work and working technique in order to have efficient work, and every one could work for another. It might be because the Faculty of Education, was a work unit which was ready for receiving the university policy. It was also a work unit including staffs with knowledge, competence, expertise, professional in providing service, and readiness in self development for being Learning Organization. Moreover, the staffs had their understanding in knowledge management as an integration in body of knowledge from the persons, information technology, thinking, behavior, and person’s experience. Furthermore, they viewed that KM was useful as well as various kinds of knowledge could be systematically synthesized as body of knowledge in the organization. It was supported by the Institute of Knowledge Management for Society (IKS) (2003) in a part of goal setting that it needed to be clear which performance they wanted to accomplish, and related to vision and mission of organization. Wijan Panich (2004) stated that the knowledge management was a work process with shared implementation by practitioners in the organization or sub-unit of organization in order to construct and use the knowledge in working for producing better achievement than the former one, and work development continuously and regularly. The Office of Government Official Commission or GOC (2005) proposed 7 phases of KM as: the knowledge indication as What were vision, mission, and goal?, and to accomplish goal, the creation and search for knowledge, the organization of knowledge to be systematic, the collection and careful selection of knowledge, the access to knowledge, the sharing of knowledge, and learning. It was supported by Nitipon Nuanmanee’s (2007) findings that the government officials of the Department of Local Administrative Support had viewpoint in the readiness for leading KM of organization in “High” level.

2. For experience sharing, the research findings found that the supporting staffs, under jurisdiction of Faculty of Education, Khon Kaen University, shared their information, news, work experience, application in the obtained knowledge from their training, conference, seminar both of inside and outside their organization. They concluded and established the report as a shared knowledge for the supporting staffs to know in very body. As a result, the shared Learning Organization occurred. The conferences were held between the administrators, and supporting staffs in order to reflect the work performance in each of work unit. They discussed about the occurred mistaken of work. Then, they collaborated in analyzing for finding the guidelines in improving and solving those problems. They shared their viewpoints for helping in problem solving the
existed problem in their work group, and supported each other. It was supported by Tiprat Atiwattanachai’s (2007) findings that for the shared knowledge and technology, could help people to utilize it in communicating and combining the information in organization most. The second order, found that it was valuable knowledge and skill in the staffs occurring from each person’s experience and learning for usefulness in disseminating knowledge as well as extending it to society. For the least one, was the conference for sharing the obtained knowledge from their training and learning, for knowledge transfer. Rat Teingtrong (2005) studied and found that the school sharing by using school based focusing on participation which used of school. There were clear work orders, readiness in resources of object, technology, budget, and man. The staffs knew their own duty. There was a good work cooperation. There was also shared opinion until they could summarized as their performance. The staffs had high level in being professional. They could use the media for work development. Besides, Faculty of Education organized the Learning and Sharing Project for sharing in monthly work, as relating to the activity by focusing on the implementation in public relation of the Faculty. The information or public relation news were informed through e-office system. The staffs were sent to project of Show and Share of Khon Kaen University for extending caliber of competency as well as increasing potentiality, and creating continuous performance and future. Staffs in the organization had regular shared learning as well.

3. For constructing knowledge bank, the research findings found that the staffs created knowledge bank by sharing and collecting the performance from conference, exchanged attitude, shared learning when there were new things in the organization. Performances were presented through web site with systematic collection of information by computer technology in organizing the data base system, and Network system which could support the communication system, for instance, keeping in portfolio, collecting the performance in group as data file keeping in computer both of KKU-FMIS, and data base in e-office system. There were various ways to extend the knowledge including the information advertisement of information or knowledge on web board for being used by the others further. There was a sharing in Learning and Sharing Project for improving knowledge and skill in work practice. There were techniques of systematic knowledge storage in the form of data file, document file, and data file in computer set. There were techniques of access to knowledge which data could be linked and communicated with each other thoroughly. It was supported by Wijan Panich’s (2005) statement that the KM storage from KM approach called “Rhombus Dessert,” Theory which referred to the KM storage system was inserted or blended harmoniously with regular work or other systems as KM inside meant that the KM system was thoroughly inserted until the KM was invisible as an instrument. The target was performance as contrast with Layer Dessert Theory in that the KM was separated from regular work, staff development. Consequently, people in organization felt that they had increased work load. So, the work was failed.
6.2 Guideline for knowledge management of supporting staff, under Faculty of Education, Khon Kaen University

The research findings found that the supporting staffs, under jurisdiction of Faculty of Education, Khon Kaen University, recommended guidelines of KM that: 1) the supporting staffs should be provided their training for knowledge in KM, since they didn’t have sufficient knowledge in KM, 2) the supporting staffs should search for knowledge for being ready in storing knowledge systematically, 3) there should be sharing both inside and outside their work unit, 4) there should be persons responsible for KM, 5) there should be determination and assignment in each work unit, 6) the Office of Quality Assurance should take care of KM as one part of Internal Quality Assurance. KM was a process of the knowledge construction, collection, systematic storage, so that it could be searched for and shared, disseminated, by administering and managing the knowledge as worthy and useful for the organization. The organizational staffs’ competency should be developed for obtaining skill and expertise, being able to use it in organizational development to accomplish objective adequately and correctly. It was supported by the Office of Government Official Development Commission or GOC (2005) regarding to 7 phases of KM as follows: 1) the knowledge indication, 2) the construction and searching for knowledge, 3) the organization of knowledge to be systematic, 4) the integration and careful selection of knowledge, 5) the access to knowledge, 6) the sharing and exchanging of knowledge, and 7) the learning which should be as one part of work. Total of 7 phases would facilitate the organization to create and manage the former knowledge both inside and outside of organization as well as new kinds of knowledge efficiently and effectively.

7. Recommendations

7.1 Recommendations for application of research findings

1) The administrators should determine the clear goal for knowledge management, and create the organizational culture in order to have unity, cooperation, collaboration, for leading to organizational development in same direction, being able to develop the knowledge management continuously, and long term success. Since the research findings found that the determination of knowledge management wasn’t clear. Besides, there were very few of staff’s collaboration and acceptance.

2) The work unit should regularly provide knowledge as well as promote in Staff’s knowledge management so that they would have better knowledge and management, by continuous monitoring and following up. Since the research findings found that the staff didn’t understand knowledge management truly. The implement in knowledge management, was lacked of continuity. Furthermore, there was no monitoring and following up intentionally.

3) The work unit should support and enhance the staff for self development based on one’s interest in order to obtain new knowledge for applying with strategic plan and project, or major activities for organizational development so that the new body of knowledge would occur and be useful for the work unit truly.
4) The administrators should assign responsibility for supporting staff to obtain knowledge, improve new skill and knowledge for the others. Moreover, they should support modern technology in searching for, and access knowledge in order to utilize in efficient management as well as be able to quickly communicate with each other.

5) The work unit should determine specific persons who would be responsible for. In addition, data base should be systematically kept.

6) The administrators should apply the research findings of this study, as a guideline for staff’s knowledge management, Faculty of Education, Khon Kaen University.

7) The work unit should bring the guideline in knowledge management, for using as information in knowledge management of supporting staff, under Faculty of Education, Khon Kaen University.

7.2 Recommendations for future research

1) The knowledge management of every level of staff, whether the instructors, or administrators in Faculty of Education, Khon Kaen University, should be studied in order to compare the new findings with findings of this study.

2) The studies using other conceptual frameworks occurring in various patterns presented by the Institute of Knowledge Management for Society (IKS) or other institutes.

8. References


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Building the future for remote indigenous students in Australia: An examination of future goals, motivation, learning and achievement in cultural context

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ABSTRACT

Education is the cornerstone of social justice because it is the basis of opportunity (Burney, 2003), but education as currently provided is failing Indigenous students in the Northern Territory (NT) of Australia. Ramsey (2003) estimated that 20 per cent of NT Indigenous students did not attend school, and, although those who were enrolled comprised 32 per cent of the NT secondary cohort, the number who achieved a Northern Territory Certificate of Education in 2000 amounted to only 6 per cent of the total school cohort. In 2009, ‘educational outcomes in the bush remain abysmal’ (Rothwell, 2009). Over half of the NT’s Indigenous students leave school without completing secondary education. Many of them are, therefore, condemned to a life in which their potential is unrealised, and the fortunes of their families severely circumscribed. Little is known of what motivates or should motivate these young people to achieve successful school outcomes.

This paper reports on a research project, ‘Building the future for Indigenous students’, which asked 733 remote and very remote students what their hopes and dreams for the future were, what motivated them at school, and how they studied. Statistical analyses are used to establish the construct validity and reliability of psychological scales and to examine similarities and differences between very remote and remote Indigenous students, and a comparator group of 300 non-Indigenous students. The findings provide critical hard data on the relationship of Indigenous students’ future visions and aspirations, motivation, self-concept, self-regulation, language and culture to their school achievement.

Keywords: Motivation, Indigenous Students, School achievement, Future Goals
Teacher Commitment and Extent of Utilization of Research Outputs in the Selected Tertiary Institutions in Bangkok, Thailand

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ABSTRACT

The purpose of this descriptive-correlation study was to determine the significant relationship of teacher commitment and utilization of research outputs in selected tertiary institutions in Bangkok, Thailand.

The level of teacher commitment was high which was obtained from indicators namely: normative commitment, affective commitment and continuous commitment. The overall mean of utilization of research outputs was high which was obtained from the indicators namely: teaching innovation and research innovation.

Findings of the study revealed that there is no significant difference in the utilization of research outputs when the respondents were categorized according to academic qualification and school. The null hypothesis was accepted. On the other hand, when the respondents were grouped according to faculty, the findings showed that there is a significant difference in the utilization of research outputs in favor of the faculty of engineering. Thus, the hypothesis was rejected. The data also showed that the faculty of education has the lowest level of research outputs utilization.

Based on the prior findings, the following conclusions are drawn: The teachers are highly committed in their institutions. The extent of utilization of research outputs in both teaching and research innovations is high. The academic qualification and school are not the factors of difference in the utilization of research outputs. The utilization of research outputs varies on the faculty of teachers. The correlation between teacher commitment and utilization of research outputs is marked moderate. It means that teacher commitment influenced the utilization of research outputs. Therefore, the null hypothesis is rejected.

In view thereof, the following recommendations are offered: administrators should plan and design programs to enhance the commitment of their teachers in their own institution; should improve the fringe benefits to increase the teacher commitment; the deans of faculty of education should design programs to enhance the lecturers’ commitment to raise the level of research utilization; the future researchers could replicate this study using independent variable not covered by this study to relate to the utilization of research outputs.

Introduction

Successful research breeds success in the classroom. The conduct of intervention programs and the implementation of innovative teaching strategies can be used to uplift the quality of education. Thus, the impact of these programs on student achievement can be assessed by means of educational researches. Our children deserve the best educational programs, based on the most rigorous evidence we can provide. Teaching then should be directed towards helping students understand phenomena in the way that experts do and that lies in the hands of the teachers who direct the instruction inside the classroom.
The move toward lifelong learning and a good education has long been embodied in all educational institutions. Constant reforms are then being implemented to remodel the system hence educators in the academe keep on pursuing researches to improve students’ performance, current educational system and find ways to solve the problems in education. However, despite the considerable studies to support the key teaching and learning, some teachers are still resistant to changes and in the implementation of those educational research-based strategies (Huberman, 1993).

School change researchers prove that there are problems in the implementation because of teacher resistance to reform which is sometimes embedded in the construction of teachers’ work. Other researchers have studied whether school staffs are enacting programs in expected ways and then asked why such behaviors are, or are not, in evidence. The loosely coupled nature of school systems and the relative autonomy of teachers in their classrooms, provide school teachers (Siskin, 1994) – with a great deal of discretion over their practice.

More so than in the West, the values and assumptions underlying these ‘modern’ educational practices run counter to traditional cultural norms of Thai society. This is not to say that Thai educators have not been asking for change. Indeed, there is widespread recognition that the current system is inefficient and ineffective at meeting the demands of the emerging era. Even so, when faced with implementing these challenging new approaches to management, learning and teaching, Thai educators remain subject to traditional Thai cultural values, assumptions, and norms. Implementation of these ‘modern’ educational reforms will fail unless teachers have a deep understanding and facilitate successful implementation of change in Thailand’s social systems.

Cognizant of the need for educational reforms and based from the facts that some lecturers are still using the traditional practices, this prompts the researcher to investigate the extent of utilization of research outputs and teacher commitment in the selected tertiary institutions in Bangkok.

Statement of the Problem

Previous researches have revealed that there are a lot of good researches but most of these are just left rotten in the book shelves (Weick, 1976). Behind the classroom door, the key factor in the success of a lesson, in determining whether the students actually learn something that matters, is the creative ability of the teachers — their ability to combine theory and practical classroom experience. Theory alone will not result in effective teaching. Nor will practice alone result in truly excellent teachers engaged in the learning process. Critical to this process is the teacher's knowledge of the subject content, and his/her ability to implement new strategies, to develop effective performance tasks, to design appropriate assessment tools, and to address the different student learning styles. Little of this can be accomplished if teachers are not knowledgeable of new research, and determined to implement it. Effective teaching therefore involves the practical application of new research/theory in a classroom environment.

The failure to utilize research rests in large part on a faulty or non-existent implementation structure. Current implementations of researched-based practices lie dormant because of resistance from some teachers to practice, service and system change. By examining the extent of utilization of research outputs in the selected tertiary institutions, administrators and teachers can plan interventions in the implementation of
educational researches to improve both pedagogical practices and student learning. The research questions will seek answers to ascertain the attitudes of teachers towards the implementation of research based practices in the selected schools in Bangkok.

**Research Questions**

This study investigates the teacher commitment and extent of utilization of research outputs. Specifically, this study seeks to answer the following questions:

1. What is the level of teacher commitment in the selected tertiary institutions in Bangkok when grouped according to:
   - 2.1 normative Commitment
   - 2.2 affective Commitment
   - 2.3 continuous Commitment

2. What is the extent of utilization of research outputs in the selected tertiary institutions in Bangkok when grouped according to:
   - 3.1 teaching innovation
   - 3.2 research innovation

3. Is there significant difference in the extent of utilization of research outputs in the selected tertiary institutions in Bangkok when analyzed according to:
   - 3.1 academic qualification
   - 3.2 school
   - 3.3 faculty

4. Is there significant relationship between the teacher commitment and the utilization of research outputs in the selected tertiary institutions in Bangkok?

**Hypotheses**

The following hypotheses were formulated based on the specific problems defined in this study.

Ho 1. There is no significant difference in the extent of utilization of research outputs in the selected tertiary institutions when analyzed according to:

   - 1. academic qualification
   - 2. school
   - 3. faculty

Ho 2. There is no significant relationship between the teacher commitment and the utilization of research outputs in the selected tertiary institutions in Bangkok.

**Objectives of the Study**

The purpose of this study is to investigate the relationship of teacher commitment and extent of utilization outputs.

The following objectives guided the study:

1. Provide research-based data for guidance of school administrators in designing organizational intervention program and faculty development program to improve the utilization of research outputs in the institution specifically in the teaching area.

2. Determine the level of teacher commitment and extent of utilization of research outputs.
3. Determine the significant relationship between the teacher commitment and the utilization of research outputs.

**Significance of the Study**

The findings of this study will provide information among school administrators on how extensive is the use of research outputs in their school and would therefore enlighten them to conduct faculty development program or hold seminars, workshops and conferences on new and emerging theories in education. This will also provide awareness among research directors to initiate more educational researches among educators. In addition, this will provide awareness among teachers on their great role in integrating research-based practices and knowledge in the improvement of teaching-learning process. Moreover, this will also give idea to further researchers to conceptualize researches in line with the use of research outputs in the education context. Further, the results of the study will provide the researcher and other researchers some benefits that will contribute to their professional development. It will also serve as a very useful guide and reference in other researches. Lastly, this will help the students as they are the primary beneficiary of the continuous studies in educational researches.

**Theoretical and Conceptual Framework**

This study is anchored in the theory of Huberman (1993) that teachers’ commitment is considered to be as a key factor in the success of current educational reform agenda as it heavily influences teachers’ willingness to engage in cooperative, reflective and critical practice. Bodilly (1998) supported the theory mentioned above that teacher commitment increases utilization of research outputs.

This study investigates teacher commitment and extent of utilization of research outputs in selected tertiary institutions in Bangkok. Shown in Figure 1 is the conceptual framework of the study. This study deals with two variables which include the teacher commitment as the independent variable and utilization of research outputs as the dependent variable. The indicators for teacher commitment are normative commitment, affective commitment and continuous commitment. On the other hand, the indicators of research outputs are teaching innovation and research innovation.
Research Design

The descriptive-correlation method was used in this study. This method was used to determine the profile of the respondents as to their academic qualification, school and faculty. The method determined the nature of commitment and utilization of research outputs of the teachers in their profession. In correlation research, it involves collecting data in order to determine whether or what degree a relationship exists between two or more variables (Gay, 1996).

Respondents of the Study

The respondents of the study were the lecturers from the selected institutions in Bangkok, Thailand. The purposive sampling method is employed in selecting the respondents of this study.
Research Instrument and Techniques:

The research study was conducted through the use of survey questionnaire. The researcher distributed to each respondent the questionnaire which was translated into Thai language for better understanding. This questionnaire is divided into three parts. Part I deals on the personal information. Part II deals on teacher commitment and Part III deals on the utilization of research outputs.

Data Analysis Tools

The data were gathered through the questionnaire and tallied using the following tools:

- **Weighted Mean.** This was used to describe the teacher commitment and utilization of research outputs.
- **Analysis of Variance (ANOVA).** This was used to determine the significant difference in teacher commitment.
- **Pearson r.** This was used to determine the significant relationship between teacher commitment and utilization of research outputs.

**Findings of Research Question 1**

The overall mean value for teacher commitment is 4.02 or high. The computed mean scores are 4.00 or high for normative commitment, 4.01 or high for affective commitment and 4.05 or high for continuous commitment.

Data show that teacher’s continuous commitment ranks the highest among the three indicators although there is just a slight difference among these three.

**Findings of Research Question 2**

The obtained overall mean of utilization of research outputs is 3.67 or high. It shows that the computed mean scores are 3.72 or high for teaching innovation and 3.62 or high for research innovation.

These show that teaching innovation ranks the highest between the two indicators although there is just a slight difference among these three.

**Findings of Research Question 3**

The computed t-value for teaching innovation is .593 with p-value of .554; the t-value for research innovation is 1.185 with p-value of .239; and the overall computed t-value for utilization of research outputs is 1.019 with p-value of .311.

Data shows that the computed t-values of all indicators for the utilization of research outputs are not significant. This implies that the academic qualifications did not differ significantly in terms of teaching innovation and research innovation. Therefore the null hypothesis of no significant difference in the extent of utilization of research outputs analyzed by academic qualification is accepted.

Data present that the computed F-ratios are .352 or not significant with p-value of .704 for teaching innovation; .367 or not significant with p-value of .694 for research innovation; and the overall F-ratio is .035 or not significant with p-value of .966.

Results show that the utilization of research outputs has no significant difference when analyzed by school.

The computed F-ratio for teaching innovation is 1.578 or not significant with .211 p-value while for research innovation it is 4.265 or significant with .017 p-value. Its overall F-ratio is 3.574 or significant with .032 p-value.
Data illustrate that the faculties of the respondents are normally the same in the utilization of research outputs in the teaching innovation. On the other hand, the utilization of research outputs in terms of research innovation of respondents varies in relation to the type of faculty they are into. This means that there is significant difference on how the teachers in each faculty utilize the research outputs in terms of research innovation.

**Findings of Research Question 4**

The computed r-value for the correlation between the normative and utilization of research outputs is .447 or significant; .416 or significant between affective and utilization of research outputs; and .439 or significant between continuous and utilization of research outputs. The correlation between the overall teacher commitment and utilization of research outputs of the respondents yields an r-value of .485 or moderate correlation.

This implies that the normative, affective, and continuous commitment have high influence to the utilization of research outputs. Aside from that, when teacher commitment is high, the utilization of research outputs increases, too.

The overall of teacher commitment was correlated to the overall utilization of research outputs and the computed r-value is .485 or significant. This means that on the whole, the influence of teacher commitment to the utilization of research outputs is moderate. There are other factors not included in the study that could influence the overall utilization of research outputs.

**Summary of Findings**

The findings of the study are presented as follow:

1. The overall mean value for teacher commitment is 4.02 or high which was obtained from 4.00 or high for normative commitment, 4.01 or high for affective commitment and 4.05 or high for continuous commitment.

2. The overall mean of utilization of research outputs is 3.67 or high which was obtained from 3.72 or high for teaching innovation and 3.62 or high for research innovation.

3. When analysis was done by academic qualification, the computed t-value for teaching innovation is .593 with p-value of .554; the t-value for research innovation is 1.185 with p-value of .239; and the overall computed t-value for utilization of research outputs is 1.019 with p-value of .311. Since the overall p value for utilization of research outputs is higher than .05 alpha, therefore the null hypothesis is accepted.

When grouped by school, the computed F-ratios are .352 or not significant with p-value of .704 for teaching innovation; .367 or not significant with p-value of .694 for research innovation; and the overall F-ratio is .035 or not significant with p-value of .966. Results show that the utilization of research outputs has no significant difference when analyzed by school.

When grouped by faculty, the computed F-ratio for teaching innovation is 1.578 or not significant with .211 p-value while for research innovation it is 4.265 or significant with .017 p-value. Its overall F-ratio is 3.574 or significant with .032 p-value. Data illustrate that the faculties of the respondents are normally the same.
in the utilization of research outputs in the teaching innovation. On the other hand, the utilization of research outputs in terms of research innovation of respondents varies in relation to the type of faculty they are into.

4. The computed r-value for the correlation between the normative and utilization of research outputs is .447 or significant; .416 or significant between affective and utilization of research outputs; and .439 or significant between continuous and utilization of research outputs. The correlation between the overall teacher commitment and utilization of research outputs of the respondents yields an r-value of .485 or moderate correlation. This implies that teacher commitment has high influence to the utilization of research outputs. Aside from that, when teacher commitment is high, the utilization of research outputs increases, too.

Conclusions
Based on the foregoing findings, the following conclusions are drawn:

1. The teachers are highly committed in terms of normative, affective and continuous commitment in their institutions.
2. The extent of utilization of research outputs is high in both teaching and research innovation.
3. The academic qualification and school have no significant difference in the utilization of research outputs.
4. The faculty has a significant difference in the utilization of research outputs.
5. The correlation between teacher commitment and utilization of research outputs is marked moderate. It means that teacher commitment influenced the utilization of research outputs. Therefore, the null hypothesis is rejected.

Recommendations
Based on the foregoing findings and conclusions, the following recommendations were offered:

1. The teacher commitment fairly influences the utilization of research outputs. This prompts then that administrators should design programs to enhance the commitment of their teachers in their own institution.
2. Administrators should improve the fringe benefits of the teachers to increase the teacher commitment.
3. The significance of difference in the utilization of research outputs shows that there is significant difference on how the teachers in each faculty utilize the research outputs in terms of research innovation. This further presents that the Faculty of Education ranks the lowest in utilizing the research outputs as compared to the Faculty of Science and Faculty of Engineering which ranks the highest. The deans of faculty of education should design programs to enhance the lecturers’ commitment to raise the level of research utilization.
4. The future researchers could replicate this study using independent variable not covered by this study to relate to the utilization of research outputs.
Influence of Competitive Intelligence Principal Decision Making Effective and Efficient in creating a competitive strategy which has competitive advantage Challenges facing the Global challenges

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ABSTRACT

Each step consists of decisions, wrong decisions will create an effective lack-efficient one. Principal of the school as a leader is one who must make decisions, and to avoid mistakes in decision-making will require a strategy. One model is to apply Competitive Intelligence in Decision Making conducted by the Principal in Effective and efficient in creating a competitive strategy that has a competitive advantage to face global challenges.

Error in putting information into intelligence conducted by the principal in the conduct or decision-making becomes less effective and efficient; it will have an impact on the poor quality of the established strategy that does not have an advantage in competition with other schools. In this era of globalization by creating a borderless world paradigm, namely that the world knows no boundaries, time, place and the territorial sovereignty of a state / nation, thus creating conditions of high competition in both the local environment, nationally and internationally.

Accuracy and speed in decision-making became the main basis to exist and the survival of the institution. And in every decision must be based on information that has been filtered, distilled and analyzed, so that the quality of decisions will bear the quality strategy has the advantage that can compete with other schools. Principled the right decision will make us successful and become a hero, whereas if the wrong decision it will fail and say reckless.

Keywords: information, transformation, intelligence, competitive intelligence, effective and efficient decision making, competitive strategy, competitive advantage, global challenges
Exploring Human Capital Theory in Northern Region Industrial Estate, Lampoon

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ABSTRACT

Using a human capital perspective, we investigated the relationship between the human capital factors of the employee and the firms’ performance. Empirical support for this claim has been predominantly based on using year of education and working experience as proxy for human capital. This paper explores the qualitative nature of human capital by specific domains of which it is composed. We show that particular aspects of human capital contribute to some but not all dimensions of performance. Understanding the qualitative nature of human capital, as well as its links to the various facts of performance, makes an important extension of the theory. Also we found that although general human capital had a positive association with educational level and working experience of the employee in Northern Region Industrial Estate, Lampoon. Interestingly, some findings were contrary to expectations from human capital perspective, specifically the relationship between general human capital such as age gender and status and the employee income.

Keywords: Educational level, Experience, Firms’ performance and Human capital

1. Introduction

The decisions of management teams impact firm outcomes is central to the literatures of strategic management. Strategic man who can accurately predict and adapt to changes in the external environment can better position their companies for success.

To capture the decision making processes of management teams is to use the demographic characteristics of the team members as a proxy. Two key demographic characteristics, education and experience, underlie the concept of human capital. A key component of human capital is the possession of knowledge that is specific and not early appropriable, and which yields competitive advantage. Numerous studies have established that human capital is a key factor in explaining organizational performance (Bruderl, Preisemadorfe, and Ziegler (1992); Gimeno, Folta, Cooper, and Woo (1997); Pennings et al. (1998).

However, studies to date have focused on the quantitative method of human capital, i.e., the idea that more is better, and have accordingly used measure such as years
or level of education or experience (Bruderl et al. (1992); Evans and Leighton (1989).

When it comes to understanding knowledge as a key resource of the firms, it is also important to consider the qualitative aspects of human capital. In contexts where firms possess large quantities of human capital, differences in quantity may matter less than differences in quality. By distinguishing between types of education and experiences, we have the opportunity to better understand which aspects of human capital are associated with higher performance. Therefore, in this article, we investigate the relationship between human capital the type of education and industry experience represented by management teams and two dimensions of investment performance.

This paper makes a number of contributions. First, we use a more fine-grained approach to human capital by investigating the performance effects of the different types of education and experience represented by management team. Second, we acknowledge two dimensions of performance and investigate how types of human capital are differentially associated with these performance dimensions. Finally, we offer a number of important topics for future research.

2. Theory and Hypotheses

*Human capital and differences in performance*

Having identified the perceptions of risk, return, opportunities, and threats as underlying decisions and thus contributing to performance, we now need to understand what make these perception vary across business. One key factor contributing to risk perception is problem domain familiarity: there is less perceived risk in familiar domains than in unfamiliar ones (Sitkin and Pablo (1992)). Similarly, in perceiving returns it would be guided by their knowledge and understanding of the value that can be added and extracted from the company. In recognizing opportunities and threats, it is guided by their perception of looming gains or losses, by their feeling of having discretion over the situation at hand, and by whether they possess key resources (Jackson and Dutton (1988)). What there brief arguments suggest is that a key ingredient to having accurate perceptions of risk, return, opportunities, and threats is having relevant knowledge.

Furthermore, investments are often in emerging industries, the above perceptions are also influenced by the ability to accumulate new knowledge, which is, in turn, dependent upon the existing stock of knowledge (Cohen and Levinthal (1990)).
stock of knowledge includes both explicit knowledge, formally acquired in educational institutions, and implicit knowledge acquired during one’s experience in a particular domain. As these aspects of knowledge underlie the concept of human capital, we will elaborate in more detail on the contribution of human capital.

The link between organizational human capital and performance can be understood in the context of the resource-based view of the firm, which associates superior performance with the possession of resources that are valuable, rare, inimitable, and nonsubstitutable (Barney (1991)). Knowledge is a resource that readily meets these conditions, is heterogeneously distributed across firms, and is thus central to understanding differences in performance (Spender (1996)). Not all knowledge, however, renders a firm unique, it is its tacit component, embedded in the firm’s social context, that makes the yielded advantages long lasting (Spender (1996)).

Although all knowledge has an explicit component, personal knowledge is often tacit in nature, reflecting a person’s unique social environment and past experience (Polanyi (1967)). While explicit knowledge can be articulated, codified, and more easily transmitted across people and organizations, tacit knowledge tends to stick to particular individuals or firms in ways that make their actions and decisions difficult to replicate. Human capital represents the knowledge and skills that individuals bring to an organization. As it is developed through both education and personal experience, it contributes to both the explicit and tacit knowledge of the firm.

The contribution to tacit knowledge is particularly strong in the big company context that consist of a small number of employee with great deal making and value-adding skills. These people have typically entered the big company after extensive experience in other industries (Bygrave and Timmons (1992)). The nature of their tacit knowledge may be distinguished less by the amount of human capital they have than by the domain components of their human capital. Although the basic tenet of human capital theory is that the greater the human capital, the better the performance at a particular task, the nature of this proposition changes at the firm level and in the context of firms with significant amounts of human capital. Specifically, as it is the collective organizational tacit knowledge that makes the organizational distinct, we need to examine the extent to which individual tacit knowledge is developed into a collective one. Key to this process of collectivization of knowledge is the sustained interaction among the individuals in the firm, in the context of a particular organizational activity. Thus, because individual
company enter the firm with knowledge and experience from multiple domains, the extent to which their knowledge and experience in particular domains would contribute the firm’s tacit knowledge will be dependent on the extent to which other members of the firm also have experience in that domain. It is the shared knowledge and experience of several companies that make for a distinct firm-level tacit knowledge in regard to their pre and post investment activities. Therefore, to understand the nature of tacit knowledge, it is essential that we examine the domain components of their human capital rather than just their total human capital.

In assessing the contributions of the various domain components of human capital to the performance of the company, it is useful to distinguish between general and specific human capital with regard to the domains of pre and post investment activities identified above. General human capital refers to overall education and practical experience, while specific human capital refers to education and experience with a scope of application limited to a particular activity or context. We distinguish between general and specific human capital on the basis of whether education and experience in a particular domain provide skills that are directly used in carrying out the activities of investment selection and management. While all education may make some contribution to general human capital, some of it contributions more to specific human capital. Education and experience specific to the pre and post investment activities of company include business, law, and consulting. Business education and experience provide expertise in screening potential of the companies, in conducting the more detailed assessment required as part of due diligence, and in advising the company’s management team on operational and strategic issue.

Education that is not directly related to the tasks of the company can be considered more general in its contribution to human capital. For example, education in humanities is designed to be broad in its application. In addition, education in science, although more specialized, is not directly related to the pre and post investment activities of a company. Therefore, we may regard these types of education as contributing to general human capital. Experience running an entrepreneurial firm provided considerable expertise, but not necessarily directly related to the more formal and bureaucratic activities required of a company. For this reason, entrepreneurial experience likely contributes more to general, rather than specific, human capital. Based on the performance proposition outlined above, we offer the following:
Hypothesis 1: Company with greater proportions of their management teams with specific human capital in terms of education and as well as industry experience will have higher significant in the result.

Hypothesis 2: Company with greater proportions of their management teams with specific human capital in terms of education and as well as industry experience will have lower significant in the result.

Hypothesis 3: Company with greater proportions of their management teams with specific human capital in terms of education in humanities and science as well as staff experience, will have higher proportions of company.

Hypothesis 4: Company with greater proportions of their management teams with specific human capital in terms of education in humanities and science as well as staff experience, will have lower proportions of company.

As these hypotheses refer to only positive effects of human capital on performance, they may appear inconsistent with argument about an inversed-U-shaped relationship between human capital and performance, particularly firm survival. This relationship is usually explained by the effect of ageing. While this effect may be relevant in the context of conceptualizing human capital as the member of years of experience, it holds no concrete implications for the more detailed, qualitative nature of human capital that we explore.

3. Exploring an alternative perspective

Although much of the research on human capital theory has operationalized general human capital in terms of year of schooling, the empirical support for a positive relationship between education and performance at a particular task is mixed. For example, while there is a positive relationship between education and productivity and between education and firm survival, there is no clear effect of education on other indicators of performance, namely, career progress and job attainment. Similarly, in the entrepreneurship literature, the findings for a positive association between education and business start-ups and between education and the discovery and exploitation of opportunities have been mixed. A possible explanation for this is that broad brush measures have insufficient sensitivity for the different impact that general and specific human capital can have on performance, especially when considering different dimensions of performance.
Although the above argument appear reasonable, there is little human capital theory upon which to hypothesize the nature of this finer grained distinction between types of education and experiences and dimensions of performance. The following, therefore, are exploratory propositions and offer an alternative perspective to that offered by human capital theory as represented in Hypotheses 1 through 4 above.

4. Research method

4.1 Research design and sample

Two factors were instrumental in designing the study. We needed a sample of company that had made a sufficient number of investments in multinational companies, had sufficient time for those investments to have reached an outcome, and had invested in similar industries, to alleviate possible confounding effects. Therefore, from the data, we drew a list of companies – 274 firms in total. It must be noted that given the focus of this research and the sample selected, our results may not be highly generalizable to those companies in Northern Region Industrial Estate of Thailand.

4.2 Measures

4.2.1. Dependent variables

We investigated one dependent variable: income, perationalized as the proportion of companies. We obtained information on the status of each company as of 2009 from the research data. We gathered the data on the human capital of management from field work.

4.2.2. Education

We used this information to measure our education-related human capital variables. We calculated a score for each of these degrees to represent the proportion of management team members that had attained this type of education. Thus, these measures based on determining one dominant specialization for each management team member or for the top management team as a whole, this measure captures the prevalence of particular educational specializations as it allows for more than one degree to be recorded per individual.

4.2.3. Industry experience
We used this information to measure our industry-related human capital variables. We coded each staff for whether he or she had worked in the industries. Industry experience included commercial, investment and technical as well as investment management in the industry.

5. Analyses and results

The correlations and descriptive statistic for the variables are presented in Table 1.1 and 1.2. Our collinearity diagnostics showed that all variance inflation factor values were below 3.0, suggesting that multicollinearity was not an issue. We used hierarchical regression analysis to test Hypotheses.

*Hierarchical regression analysis and results*

We conducted several diagnostic tests to ensure the data did not violate the assumptions of normality, linearity, and homoscedasticity necessary for OLS regression estimation. To especially guard against possible curvilinear relationships, we plotted each independent – dependent variable relationship and conducted one-way ANOVA to test for this relationship.

The results of the hierarchical regression analysis are reported in Table 2.1 and 2.2. This based model was statistically significant (R²=0.131, P<0.01). The addition of the predictor variables made a significant coefficients for education and experience. These results support Hypothesis 1 and 3, respectively. Conversely, with higher prevalence of consulting industry experience have lower proportions of success companies. The effects of the remaining types of education and industry experience were significant and therefore, Hypotheses 2 and 4 were not supported.
Table 1.1. Descriptive statistics and correlations

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<thead>
<tr>
<th></th>
<th>SEX</th>
<th>STATUS</th>
<th>EDYEAR</th>
<th>YEAR</th>
<th>AGE</th>
<th>INCOME</th>
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<td></td>
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<td></td>
<td></td>
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<td>Correlation</td>
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<td>-.052</td>
<td>-.174(**)</td>
<td>-.008</td>
<td>-.097</td>
<td>-.070</td>
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<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.394</td>
<td>.004</td>
<td>.891</td>
<td>.110</td>
<td>.246</td>
</tr>
<tr>
<td>STATUS</td>
<td>Pearson</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Correlation</td>
<td>-.052</td>
<td>1</td>
<td>-.086</td>
<td>.321(**)</td>
<td>.401(**)</td>
<td>.125(*)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.394</td>
<td>.154</td>
<td>.000</td>
<td>.000</td>
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<td>.038</td>
</tr>
<tr>
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<td>Pearson</td>
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<tr>
<td>Correlation</td>
<td>-.174(**)</td>
<td>-.086</td>
<td>1</td>
<td>-.159(**)</td>
<td>-.230(**)</td>
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<tr>
<td>Sig. (2-tailed)</td>
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<td>.008</td>
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<tr>
<td>Correlation</td>
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<td>.321(**)</td>
<td>-.159(**)</td>
<td>1</td>
<td>.599(**)</td>
<td>.312(**)</td>
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<tr>
<td>Sig. (2-tailed)</td>
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<td>.000</td>
<td>.008</td>
<td>.000</td>
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<td>.000</td>
</tr>
<tr>
<td>AGE</td>
<td>Pearson</td>
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<td>Correlation</td>
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<tr>
<td>Sig. (2-tailed)</td>
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<td>.038</td>
<td>.076</td>
<td>.000</td>
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** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Table 1.2. Coefficients (a)

<table>
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<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
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<td>Beta</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>3347.357</td>
<td>1315.718</td>
<td></td>
</tr>
<tr>
<td>SEX</td>
<td>-122.688</td>
<td>253.720</td>
<td>-.028</td>
</tr>
<tr>
<td>AGE</td>
<td>43.125</td>
<td>32.591</td>
<td>.100</td>
</tr>
<tr>
<td>STATUS</td>
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<td>235.455</td>
<td>.010</td>
</tr>
<tr>
<td>EDYEAR</td>
<td>155.920</td>
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<td>.170</td>
</tr>
<tr>
<td>YEAR</td>
<td>132.770</td>
<td>34.493</td>
<td>.276</td>
</tr>
</tbody>
</table>

a Dependent Variable: INCOME

There were also significant coefficients for industry experience and education. The positive coefficient for industry experience indicates that it has higher proportions of success companies, a result in the opposite direction to that proposed by Hypothesis 2. The negative coefficient for gender with greater of such experience have lower proportions of companies, a result supporting Hypothesis 4. The effect for industry experience was not significant and therefore, Hypothesis 4 is not supported.
Table 2.1 Model 1

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
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<td>.362(a)</td>
<td>.131</td>
<td>.115</td>
<td>1896.25438</td>
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</table>

a Predictors: (Constant), YEAR, SEX, ED, STATUS, AGE

ANOVA(b)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
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</tr>
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<td>3595780.693</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>1108832272.433</td>
<td>273</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Predictors: (Constant), YEAR, SEX, ED, STATUS, AGE
b Dependent Variable: INCOME

Coefficients(a)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
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<td>Std. Error</td>
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a Dependent Variable: INCOME

Table 2.2 Model 2

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a Predictors: (Constant), YEAR, SEX, EDYEAR, STATUS, AGE

ANOVA(b)

<table>
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<th>Model</th>
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</table>

a Predictors: (Constant), YEAR, SEX, EDYEAR, STATUS, AGE
b Dependent Variable: INCOME
Coefficients(a)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
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<tr>
<td>1</td>
<td>(Constant)</td>
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<td>YEAR</td>
<td>132.770</td>
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<td>.276</td>
</tr>
</tbody>
</table>

a  Dependent Variable: INCOME

6. Discussion

In a broad sense, our finding suggest that human capital provides a significant explanation of variations in the examined dimensions of performance, over the effects accounted for by firm characteristics. We have shown that for particular knowledge areas, the higher the overlap among the partners, the higher the performance of the companies. This provides support to the management matters and to the presented conceptual argument that firm knowledge developed in particular areas yields competitive advantage. However, since not all knowledge areas had significant or positive effects, we need to subject the relationships between the particular knowledge areas examined and the two dimensions of performance to a closer analytical scrutiny.

6.1 Specific human capital

As expected, we found that those companies with greater proportions of staff management teams with higher education and experience had lower proportions of bankruptcies in their industry. This is consistent with findings suggesting a positive link between specific human capital and venture survival. This is also consistent with the findings of industry-specific human capital is negatively related to firm dissolution. Although it regard industry-specific experience as general human capital, this different classification is largely due to their studying a single, more homogeneous industry.

Interestingly, we found that those companies with greater proportions of their management teams with high experience has higher proportions of success in their industries. This result was surprising at first because it appeared inconsistent with human capital theory, but upon further reflection, it might offer
an interesting insight into the post-deal management of companies. For companies that are not performing well and have the prospect of further deteriorating performance, declaring bad investment for the company is possible the only way for companies to get something back from such company.

6.2 General human capital

As expected, we found that those companies with greater proportions of their management team with higher education it had higher proportions of success in their industry. This is broadly consistent with the findings of a positive relationship between education as a proxy for general human capital and various aspects of performance, namely, firm growth and opportunity discovery. In regard to why the particular educational specializations of technical science has a positive association with success companies, the current finding are also consistent with the nation of general human capital facilitating access to a wider opportunity set. Perhaps, the firm knowledge built around the shared education in these areas enables to companies to successfully respond to and integrate new technological advances, and to successfully anticipate the market acceptance of the commercial products based on such technological advances.

6.3 Potential limitations and future research

This study, as all studies, has a number of limitations and possibilities for future research. First, we captured aspects of companies human capital by measuring the education and experience of its management term to explain firm level outcomes. Although the top management team makes important strategic decisions for a firm, capturing the human capital of all individual within the organisation, might explain greater variance in company performance. However, such an approach does introduce a number of new challenges. It is probably difficult for researchers to access biographical information on all employees that work in companies. Furthermore, how should the human capital of all these individuals be combines to provide an organizational level variable. A simple proportion of education and experience as used in this study does not take into sufficiency consideration the different roles and responsibilities of these individuals. For example, a company might has more administrative staff, such as receptionists and data entry personnel, who add to the general efficiency of the firm but who have little to do with the pre and post investment activities of the
venture capital process. In this case, a proportion measure across the whole firm would appear to understate the human capital of the firm to maximize success companies.

Second, the present study did not control for the quality or size of companies deal flow. The attributes of the deal flow could influence the proportions of success companies. While this is a limitation of the study, it reflects the need for a more focused approach. To increase the size and quality of a company’s deal flow is a pre investment activity and based on the human capital literature discussed above, we would expect that those with more human capital would be able to generate a better deal flow, which is then reflected in superior performance. This limitation does highlight the need for future research to offer fine-grained analysis of the pre and post investment activities and more closely match types of human capital to these task but be of little benefit to the performance of a different, post investment task.

Finally, the present study did not control for the companies possible syndication of the deals in which they have invested. A significant proportion of venture capital deals are syndicated, and the connectedness of companies within certain regions or industry sectors ranges between 22% and 69%. Accounting for the co-investment partners of a company could either enhance or weaken the human capital effects reported in this paper because the base for human capital influence may expand or shift. This limitation also points to an important area for future research, namely, consideration of the human capital of syndicate partners when trying to gain a deeper understanding of company outcomes.

7. Conclusion

The general implication of human capital theory is that more is better. Empirical support for this claim has been predominantly based on using yeas of education or experience as proxy for human capital. From a methodological point of view, the empirical studies in this stream essentially compare contexts where human capital abounds to contexts where it is lacking. There is thus less theoretical and empirical precision in contexts where there are no apparent or sizeable differences in the amount of human capital. The current paper explores the qualitative nature of human capital by
examining the specific domains of which it compared. We show that particular aspects of human capital contribute to some but not all dimension of performance. Understanding the qualitative nature of human capital, as well as its links to the various facts of performance, makes an important extension of the theory.

In addition, the results of this study have some important implications for practitioners. Companies may build their investment terms with a human capital consideration in mind. Understanding the human capital factors contributing to achieving more that can help build teams that increase firms performance. But they must acknowledge the aspects of human capital differ in their impact on each performance dimension. Similarly, entrepreneurs seeking venture capital fiancé may increase their awareness of the value that a company could bring to their start-up company. By preexamining the backgrounds of the management team, entrepreneurs can target those companies that could make the greatest contribution to their success.

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LEADERSHIP ATTRIBUTES OF SCHOOL ADMINISTRATORS AND THEIR EFFECTIVENESS AS PERCEIVED BY ENGLISH LANGUAGE TEACHERS IN MUANG DISTRICT, NAKHON SRI THAMMARAT, THAILAND

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ABSTRACT

The purpose of this correlational study was to investigate the relationship between the leadership attributes of School Administrators and their effectiveness as perceived by Selected Secondary English Language Teachers of Muang District, Nakhon Sri Thammarat Province, Thailand.

The overall mean value for perceived leadership attributes of the school administrator is high which was obtained from the management skills, personal characteristics, and social characteristics. The overall mean value for the leadership effectiveness was very effective which was obtained from planning and implementation, and monitoring and evaluation.

The following conclusions were drawn based on the foregoing findings: (1) School administrators have high attributes of leadership observed in the areas of management skills, personal characteristics, and social characteristics; (2) The school administrators are very effective in planning and implementing, and monitoring and evaluating school programs; (3) The correlation between the leadership attributes and effectiveness of the school administrators is high as perceived by the respondents.

Based on the foregoing findings and conclusions, the following recommendations were offered: (a) The school administrator should enhance their leadership attributes through strong professional development programs; (b) The school administrators should demonstrate always their leadership attributes in management skills, personal characteristics, and social characteristics to increase their level of effectiveness in planning, implementing, monitoring, and evaluating school programs to extremely effective level since the leadership attributes have significant influence to their performance; and (d) The school administrators should continue to demonstrate highly social skills in planning, implementing, monitoring, and evaluating school programs for this boost their effectiveness.
Keywords: Leadership Attributes, Leadership Effectiveness, Management skills, Social Skills, Personal Characteristics of a Leader, Planning, Implementation, Monitoring, Evaluation

Introduction

Educational leadership today is challenged by internal pressure from rapid technology development continuously fast pace of change, globalization, and the quality assurance (QA) movement, to name a few. Against the background, there is an urgent demand for school administrators to be efficient and effective in the performance of their functions. They have to show attributes and skills which will enable their faculty and ultimately their school to offer quality education. It is within this context that the researcher wants to examine, through the use of the Leadership Attributes Inventory formulated by Moss, the attributes and skills displayed by school administrators and the level of their effectiveness as perceived by their teachers. Perceptions of followers are extremely important in as much as behaviors are dependent on meanings placed by people on what their senses tell them. Therefore, school leaders can be guided by perceptions of their followers especially if these are systematically and scientifically gathered in the research process.

Many educational researches had been conducted about leadership and yet few had been specified in which place the leadership style is appropriate. Some even failed to learn much about leadership because few of these researches questioned the perceptions of those who were being led. Bennis (1990) noted that leaders should necessarily have to know, understand and permit themselves to be influenced by those they lead. There in, lies the importance of faculty and staff perceptions when examining the importance of leader attributes and subsequent leader behaviors.

Thai people customarily obey and highly respect those on top of the organization, therefore helpful feedback is quite difficult to obtain but could not simply be ignored. Feedback is extremely necessary to determine whether one is performing well or not. So, there is need for the people to know about leadership effectiveness through subordinates perceptions.

The Ministry of Education is leading the transformation of the education system through a strategy based around enhancing moral and ethical values together with a core programme of enhancing the quality of education. Professional development of the educational leaders is one of the keys to this strategy.

The Problem

This study aimed to determine the significant difference in the leadership attributes of the school administrators based on observer-rating results of the leader attributes inventory adapted from Moss. Specifically, it attempted to find out the following: (1) determine the level of leadership attributes of school administrators as perceived by the respondents in terms of management skills, personal characteristics, and social characteristics; (2) ascertain the level of school administrators’ effectiveness as
perceived by the respondents in terms of planning and implementation, and monitoring and evaluation; (3) determine the significant difference in the leadership attributes of school administrators as perceived by the respondents when analyzed according to gender, age, teaching experience, and academic qualification; and (4) determine the significant relationship between the leadership attributes and administrators’ effectiveness.

Methodology

The study utilized the descriptive-correlation-survey method. The stages followed as recommended in the survey method. A survey checklist was adapted from Moss, J., but it was translated into Thai for clear and easy understanding. The statistical tool used was weighted mean, t-test, ANOVA, and Pearson r. The respondents included 97 selected Secondary English Language Teachers of Nakhon Sri Thammarat Secondary Schools.

Results and Discussion

Level of leadership attributes of school administrators as perceived by the respondents in terms of management skills, personal characteristics, and social characteristics. The study shows that the overall mean is 3.89 or high for leadership attributes of the school administrators as perceived by the respondents; 3.80 or high for management skills, 3.91 or high for personal characteristics and 3.97 or high for social characteristics.

Data reveal that the school administrators as perceived by the respondents often displayed leadership attributes. This implies that the English Language teachers perceived their administrators as leaders with the necessary attributes as indicated in their management skills, personal characteristics, and social characteristics. All of which were highly observed.

The leadership attributes of school practitioners based on observer-rating results of leader attribute inventory which were high as perceived by the Secondary English Language Teachers of Muang Nakhon Sri Thammarat Thailand are management skills, personal characteristics, and social characteristics.

The overall mean for leadership attributes of school administrators was 3.90 or high; 3.80 or high which was obtained from the management skills was 3.91 or high, and for personal characteristics 3.97 or high for social characteristics.

Level of school administrators’ effectiveness as perceived by the respondents in terms of planning and implementation, and monitoring and evaluation. The study shows the overall mean is 4.12 or very effective. The mean score of leadership effectiveness of the school administrators as perceived by the respondents is 3.94 or slightly effective for planning and implementation, and 4.29 or very effective for monitoring and evaluation.

Data reveal that the school administrators as perceived by the respondents displayed very effective in leadership effectiveness. This implies that the respondents
perceived their school administrators as leaders with a very effective leadership indicated in planning and implementation, and monitoring and evaluation.

The overall mean was 4.12 or very effective for leadership effectiveness. The computed mean scores was 3.94 or slightly effective for planning and implementation, and 4.29 or very effective for monitoring and evaluation.

**Significant difference in the leadership attributes of school administrators as perceived by the respondents when analyzed according to gender, age, teaching experience, and academic qualification.** When group by age, the computed F-ratio for planning and implementation was .184 or not significant with the p-value of .907; for monitoring and evaluation was .997 or not significant with the p-value of .398; and the overall computed F-ratio for the perceived leadership effectiveness of the school administrators was .413 or not significant with the p-values of .744.

When analyzed by gender, the over-all computed t-value for leadership effectiveness of the school administrators was .575 with the p-value of .567. The computed t-value for planning and implementation was .685 or not significant with the p-value of .495; while the computed t-value for monitoring and evaluation was .335 with the p-value of .739.

When grouped by academic qualification, the computed F-ratio for the planning and implementation was .3.71 or significant with p-value of .028; and for monitoring and evaluation was .88 or not significant with p-value of .416. The overall F-ratio or not significant was 2.51 with p-value of .087.

When grouped by teaching experience, the computed F-ratios for planning and implementation was 5.388 or significant with p-value of .006; for monitoring and evaluation were 5.791 or significant with p-Value of .004. The overall computed F-ratio was 6.981 or not significant with the p-value of .001.

**Determine the significant relationship between the leadership attributes and administrators’ effectiveness.** The computed r-value for the correlation between management skills and leadership effectiveness of the school administrator was .72 or significant, between personal characteristics and leadership effectiveness was .69 or significant, and between social characteristics was .83 or significant. The overall computed r-value for the correlation between leadership attributes and leadership effectiveness of the school administrator as perceived by the respondents was .73.

**Conclusions and Recommendations**

To conclude: (1) School administrators of Muang, Nakhon Sri Thammarat, Thailand have attributes of leadership highly observed in the areas of management skills, personal characteristics, and social characteristics. (2) The school administrators are very effective in planning and implementing, and monitoring and evaluating school programs. (3) The computed t-value for planning and implementation indicator is .184 with the p-
value of .907; the t-value for monitoring and evaluation is .997 with the p-value of .398; and the overall computed t-value for the perceived leadership effectiveness of the school administrator is .413 with the p-values of .744. (4) The age, gender, academic qualification and teaching experience, are not factors of difference in the perceived leadership effectiveness of the school administrators. (5) The correlation between the leadership attributes and effectiveness of the School Administrators of Muang, Nakhon Sri Thammarat, Thailand is high as perceived by the respondents.

Based on the foregoing findings and conclusions, the following recommendations are offered: (1) The school administrator should enhance their leadership attributes through strong professional development programs. (2) The school administrators should increase their effectiveness in planning, implementing, monitoring, and evaluating programs to extremely effective level. (3) The school administrators should demonstrate always their leadership attributes in management skills, personal characteristics, and social characteristics to increase their level of effectiveness in planning, implementing, monitoring, and evaluating school programs to extremely effective level since the leadership attributes have significant influence to their performance. (4) The school administrators should continue to demonstrate always social skills in planning, implementing, monitoring, and evaluating school programs for this boost their effectiveness. (5) The researchers could replicate this study using other leadership attributes and effectiveness using indicators not included in this study.

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INTELLECTUALLY GIFTED YOUTHS AND THEIR PROSPECTS AS BUSINESS MANAGEMENT TEACHERS IN NIGERIA

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²Abubakar Tafawa Balewa University, Bauchi, Nigeria

ABSTRACT

This research of intellectually gifted youths and their prospects as business education teachers analytically compare the attributes of the intellectually gifted business student-teacher to the normal business student-teacher in three tertiary institutions in Cross River State, namely, the College of Education, Akamkpa; Polytechnic, Calabar; and the University of Calabar. It embarked on the comparison in order to find out if there were any unique personal characteristics differentiating the two groups. It found out that the intellectually gifted business student-teachers were not utilitarian in their values but they had prospects as business education teachers. Conclusively, it showed that there were some differences between the attributes of the intellectually gifted business student-teacher and those of the normal business student-teachers in Cross Rivers State.

Keywords: Gifted, youths and business management

INTRODUCTION

Nigerian schools have been given the task of helping each student develop his or her talent in the cognitive, affective and psychomotor areas of human development. However, recent researches or studies including Osuala (1989) suggest that Nigerian schools and adolescent peer culture have not enhanced a deep commitment to intellectual excellence and academic achievement gained through hard work.

A study conducted by the author right after the Olympic Games this year showed that 30% of the secondary school student respondents wanted to be remembered as brilliant students and potential brilliant teachers while 48% wished to be remembered as star footballers. This study indicated that there was lack of recognition given to the secondary school students who were highly motivated and who must work hard to achieve in the academic areas. Academic success brought little glory to the contemporary secondary school student, particularly if it must be gained by mental exercise and dedication.

The findings of this study have resulted in the continued interest in academic or intellectualism and the future of the intellectually gifted youths as business educators. Consequently, two relevant questions are asked here to guide this present research.

RESEARCH QUESTIONS

1) If Nigerian future society encourages identification between teacher and students, what are some of the personal attributes students may adopt from intellectual gifted teachers?
If identification takes place, what can students learn from teachers in terms of values, vocations preferences and personal preferences?

REVIEW OF RELATED LITERATURE

It is important here to note the position of Gewertz and Stengle (1968) who argued that generalized imitations began to merge into identification when it shaded into imitation of values and when responses were filled into a generalized class. Imitation included mannerism, methods of achieving objectives while identification was the adoption of another person’s abstract code of behaviour and general life position. McCandles (1970) claimed that expertness and prestige, influence modeling are more among older than younger children. The prestige of Nigerian teachers increased in the late 1970s right after the civil war but dwindled in the late 1980s with the uncompromising national economy when money became more valued given its scarcity.

However, the recognition and prestige given to Business teachers, because of their relevance and practical approaches to solving economic problems, offer some encouragement for their greater influence on students’ attitudes and values.

Warren and Heist (1960) compared intellectually gifted college students with unselected college students on various personality characteristics. In terms of values, as measured by the study of values, they found sharp divergence in the Theoretical Economic and Aesthetic scales. Gifted Business Education students value the theoretical and aesthetic orientations relatively higher and the economic or utilitarian relatively lower than students in comparative sample. Differences on the other scale, social, political and religious were slight.

The Edward Personal Preference Schedule based on Murray’s need system has been used in a number of studies to determine teacher personality characteristics. Shelfon, Coole and Copple (1959) found that potentially good teachers have significantly lower scores on aggression and abasement than did teachers who score low on Minnesota Teacher Attitude Inventory (MTAI).

Callies (1950) conducted research with satisfactory results using MTAI to predict teacher-pupil rapport. With a sample of 77 teachers in grades 4-10 and ratings by pupils, principal and observers, he found a significant relationship between MTAI scores and pupil-teacher rapport.

Kuder (1953), the Kuder Preference Records reported data regarding the vocational preferences and interest of teachers. It was only when teacher groups were differentiated into male, female, elementary, secondary and subject areas that notable differences were obtained. Based on the findings, the use of the Kuder in this study to determine vocational preferences of specific teacher group is justified.

RESEARCH METHODOLOGY

This paper replicated Alport-Versonon- Lindsay’s method of studying values, Edward’s Personal Preference schedule and Attitude toward teaching by Minnesota Teacher Attitude Inventory (MTAI). Two groups of selected gifted and normal business student-teachers were identified at the College of education, Akamkpa, Polytechnic Calabar, and the University of Calabar. The total numbers of student-teachers selected were 40. Those selected
belongs to the top 25 percent of the Business Education classes qualifying them as intellectually gifted.

The selection of the student-teacher for the study was guided by the pilot study conducted by the researcher. Comparison between the two groups was made by using the “t” test and .05 and .01 as levels of confidence of determining the significant differences.

**DISCUSSION OF FINDINGS**

**Fig. 1**

<table>
<thead>
<tr>
<th>MINNESOTA TEACHER ATTITUDE INVENTORY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gifted</strong></td>
</tr>
<tr>
<td>N= 40</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td><strong>Normal</strong></td>
</tr>
<tr>
<td>N= 40</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>t</td>
</tr>
</tbody>
</table>

As presented in Figure 1 above, gifted business student-teachers showed significantly higher scores on Minnesota Teacher’s Attitudes Inventory (MTAI) than normal business student-teachers with the significant at the 0.01 level of confidence. These findings suggested that gifted business teachers might have greater influence on their students because of the exceptionally positive attitudes towards students when compared to the ungifted business student-teachers.

**Fig 2**

<table>
<thead>
<tr>
<th>VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gifted</strong></td>
</tr>
<tr>
<td>N= 40</td>
</tr>
<tr>
<td>Items</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Theoretical</td>
</tr>
<tr>
<td>Economic</td>
</tr>
<tr>
<td>Aesthetic</td>
</tr>
<tr>
<td>Social</td>
</tr>
<tr>
<td>Religious</td>
</tr>
<tr>
<td>political</td>
</tr>
</tbody>
</table>

* Significant at the .05 level of confidence
** Significant at the .01 level of confidence

The data in fig 2 above regarding values showed that gifted business student-teachers did not place high value on the practical, useful items compared to the normal sample. They were not very much concerned with the production, marketing and consumption of goods related to the business world. They did not significantly show higher religious values than the normal business student-teachers which meant that the gifted business student-teachers were searching for the meaning of life and seeking to understand or know the universal. Lack of
value in the economic item by the gifted business student-teachers agreed with Warren and Heist findings that gifted college students were less utilitarian than unselected college students.

Fig 3

**VOCATIONAL PREFERENCE**

<table>
<thead>
<tr>
<th>Items</th>
<th>Gifted Mean</th>
<th>Gifted SD</th>
<th>Normal Items</th>
<th>Normal Mean</th>
<th>Normal SD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation</td>
<td>24.91</td>
<td>9.00</td>
<td>Occupation</td>
<td>23.01</td>
<td>10.33</td>
<td>1.22</td>
</tr>
<tr>
<td>Scientific</td>
<td>35.29</td>
<td>12.11</td>
<td>Scientific</td>
<td>27.52</td>
<td>8.87</td>
<td>3.37**</td>
</tr>
<tr>
<td>Artistic</td>
<td>30.38</td>
<td>9.34</td>
<td>Artistic</td>
<td>34.83</td>
<td>8.16</td>
<td>2.06*</td>
</tr>
<tr>
<td>Social science</td>
<td>49.98</td>
<td>12.68</td>
<td>Social science</td>
<td>47.86</td>
<td>14.49</td>
<td>.74</td>
</tr>
<tr>
<td>Clerical</td>
<td>47.81</td>
<td>14.40</td>
<td>Clerical</td>
<td>47.47</td>
<td>14.53</td>
<td>1.10</td>
</tr>
</tbody>
</table>

* Significant at the .05 level of confidence  
** Significant at the .01 level of confidence

The gifted business student-teacher significantly has higher scientific interests but significantly lower artistic interests compared to the normal sample of the student-teachers. The findings as illustrated in the figure 3 of the vocation preference above meant that the gifted business student-teachers liked to discover new facts and solved problems and they had interest in science identical to physicians, engineers and chemists. The gifted business student-teachers were significantly lower than the normal sample in the artistic areas meaning that the normal business student-teachers had higher interests in the artistic work using their hands for the production of attractive designs and materials. Despite their lesser interests in artistic work and more inclination in science, the gifted business student-teachers had prospects as business education teachers.

CONCLUSION

This research analytically compared the attributes of the intellectually gifted business student-teachers in three tertiary institutions in Cross River State, namely the College of education, Akamkpa; Polytechnic Calabar; and the University of Calabar, Calabar. It embarked on the comparison in order to find out if there were any unique personal characteristics differentiating the two groups. It found out that the intellectually gifted business student-teachers were not utilitarian in their values. An important and interesting result is the contrast between scientific and artistic vocation preference of the gifted student-teachers who were scientific in their interests with a lesser interest in artistic areas. The contrast suggested that the gifted student-teachers would like to discover new facts and use scientific approaches to solve problems but would not have strong interest in artistic work.
Conclusively, this study showed that there were some differences between the attributes of the intellectually gifted business student-teachers in Cross Rivers State, since the population and sample of the study were representatives of the tertiary institution in the state.

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PARTICIPATORY DECISION MAKING AND ORGANIZATIONAL COMMITMENT OF TEACHERS IN DARASAMUTR SCHOOL SRIRACHA, CHONBURI, THAILAND

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ABSTRACT

The purpose of this descriptive-correlational study was to investigate the significant relationship of participatory decision making and organizational commitment of teachers in Darasamutr School, Sriracha, Chonburi, Thailand.

The overall mean for the level of participation in decision making of teachers was high which was obtained from teaching domain and managerial domain. The overall mean for the teachers’ organizational commitment was very high which was obtained from normative commitment, affective commitment and continuous commitment.

Results of the study showed that the academic qualification and decision making level of the respondents have no significant difference in their commitment to the organization. On the other hand, teaching experience of the respondents has a significant difference in their commitment to the organization.

Based on the foregoing findings, the following conclusions are drawn: The teachers are often involved in participatory decision making in terms of teaching and managerial domains. Teachers’ organizational commitment is very high. The academic qualification and decision making level are not factors of difference in the organizational commitment of teachers. The teaching experience has a significant difference in teachers’ commitment in the organization.

The following recommendations were offered: The teachers are being committed in the organization when they are involved in decision making. This prompts then that the administrators should involve the teachers in teaching and managerial areas and design programs to enhance the level of participation in decision making of teachers. Administrators should conduct seminars, workshops and conferences to encourage teachers to be more active in participatory decision-making for self-actualization and professional development. The significance of difference in the teacher commitment in the organization shows that there is a significant difference on the teaching experience of the teachers. This further presents that the teachers with 1-10 years of teaching experience ranks the lowest in their commitment to the organization compared to the teachers with 11 years and above. This prompts then that administrators should encourage new teachers to take an active part and be involved in school decision making. The correlation between participatory decision making and organizational commitment of teachers in Darasamutr School Sriracha, Chonburi, Thailand is substantial. The future researcher could replicate this study using other participatory decision making styles with private, public, Christian or Non-Christian, International or Bilingual schools.

Keywords: PARTICIPATORY DECISION MAKING, ORGANIZATIONAL COMMITMENT, TEACHING DOMAIN, MANAGERIAL DOMAIN
Introduction

Participatory decision-making is a concept based on the fundamental principle that individuals who are affected by the decision, possess expertise regarding the decision, and are responsible for implementing the decision, should be involved in making the decision (David, 2001). However, common misconception by school administrator is that participative management involves simply asking teachers to participate or make suggestions. In many cases, what the administrators would likely to happen be implemented which supersedes the suggestions of the teachers. In order for participative management to work, several issues must be resolved and several requirements must be met. First, school administrators must be willing to relinquish some control to their teachers; school administrators must feel secure in their position in order for participation to be successful. Often school administrators do not realize that teachers' respect for them will increase instead of decrease when they implement a participatory decision-making style.

Empirically, there are many administrators in Bangkok make decisions about school policies and improvement without involving the teachers in decision-making.

Many instances, school reforms and initiatives are implemented without the knowledge of the teachers and after a year they are asked about the result of the program which caused frustration and disappointed among teachers. These prompts the researcher to investigate the extent of participatory decision-making and relate it to the organizational commitment among teachers in Darasamutr School Sriracha, Chonburi, Thailand.

Statement of the Problem

Greater involvement of teachers in decision-making was an important aspect of the decentralization policy of school-based management and an alternative to the top-down bureaucratic system of schooling. School-based management has been proposed as a method to decentralize and debureaucratize school control (Guthrie, 1986) and to promote shared decision-making within schools (Brown, 1990). However, few researchers have explored effective management practices that could foster increased participation or identify the areas and extent to which teachers should be empowered for shared decision-making. Most teachers experienced decision deprivation in their daily teaching life. Teachers are deprived from participatory decision-making in the instructional as well as managerial domain. However, teachers experienced a higher level of decision deprivation in the managerial domain compared to the instructional domain (Robertson, 1993).

Research Question

This study aims to determine the significant relationship between the participatory decision-making and organizational commitment of teachers in Darasamutr School Sriracha Chonburi, Thailand.

Specifically, it seeks to answer the following questions:

1. What is the level of involvement of teachers in the participatory decision-making in Darasamutr School Sriracha, Chonburi, Thailand in terms of the following:
Teaching Domain
Managerial Domain
2. What is the level of organizational commitment of teachers in Darasamutr School Sriracha Chonburi, Thailand in terms of the following:
   2.1 affective organizational commitment
   2.2 continuous organizational commitment
   2.3 normative organizational commitment
3. Is there a significant difference in the level of teacher commitment in Darasamutr School Sriracha Chonburi, Thailand when analyzed by:
   Academic Qualification
   Teaching Experience
   School Decision Making Level
4. Is there a significant relationship between the participatory decision-making and organizational commitment of teachers in Darasamutr School Sriracha Chonburi, Thailand?

Hypothesis

**Ho1:** There is no significant difference in the level of teacher commitment in Darasamutr School Sriracha Chonburi, Thailand when analyzed by academic qualification, teaching experience and school decision making level.

**Ho 2:** There is no significant relationship between the participatory decision-making and organizational commitment of teachers in Darasamutr School Sriracha Chonburi, Thailand.

Objectives of the Study

The main objective of this study is to determine the significant relationship between the participatory decision-making and the organizational commitment among teachers in the Darasamutr School Sriracha Chonburi, Thailand. The following specific objectives will guide also the study:
1. Determine the level of involvement of teachers in the participatory decision-making in Darasamutr School Sriracha Chonburi, Thailand.
2. Ascertain the level of organizational commitment of teachers in Darasamutr School Sriracha Chonburi, Thailand.
3. Analyze the significant difference in the level of teacher commitment in Darasamutr School Sriracha Chonburi, Thailand in terms of academic qualification, teaching experience and decision making level.
4. Determine the significant relationship between the participatory decision-making and organizational commitment of teachers.

Theoretical and Conceptual Framework

This study is anchored in the theory of Morhman & Cooke (1978) that the relevance of decision content is important to the effectiveness of teacher participation and can affect teachers’ satisfaction and zone of acceptance.
Significance of the Study

The output of this study will benefit the following:

School Administrators. The result of this study will provide insights to the school administrators on the importance of involvement of teachers in participatory decision-making to their organizational commitment. It will also enlighten the school administrators to conduct seminars, workshops and conferences to encourage teachers to be more active in participatory decision-making for self-actualization and professional development.

Teachers. The results of this study will encourage teachers to take an active participation and involvement in decision-making for the improvement of the school.

Students. The results of this study will benefit the students as they are the primary beneficiary of the continuous studies in educational researches.

Researchers. This study will serve as a very useful guide and reference in their action research.

Research Design

This study employs the correlational research design. In correlational studies, the basic aim is to measure and describe a relationship between two variables by determining
the magnitude and direction of such a relationship, if any exists. (Gravetter & Wallnu, 2004). Since the present study is concerned with the participatory decision-making and organizational commitment of teachers at Darasamutr School Sriracha, Chonburi, Thailand, correlational method of research is the most appropriate method to use.

Research Instrument

After reading and studying samples of questionnaire from related studies, the researcher prepared his own questionnaire. He also consulted some knowledgeable people about how to prepare one. The researcher saw to it that there were enough items to collect data to cover all aspects of the problem and to answer all the specific questions under the statement of the problem. Then he submitted the questionnaire to his adviser for correction after which it was finalized. This questionnaire is divided into three parts. Part I deals the personal information. Part II deals on Participation of Teachers in Decision-making and Part III deals on Organizational Commitment of Teachers.

The copies of the questionnaire will be distributed personally by the researcher to the respondents. After a few days, all copies distributed will be retrieved also personally by the researcher.

Data Gathering Procedure

The researcher will seek permission from the school administrator in Darasamutr School to allow him to conduct survey to 300 teachers on the relationship of participatory decision-making and organizational commitment.

The researcher will personally distribute the sets of questionnaire and later on retrieve the questionnaire from the respondents. This will be done a week before the actual survey is conducted. The data will be organized and tabulated in preparation for the analysis and interpretations.

The method of collecting data will be the normative survey. This is concerned with looking into the commonality of some elements.

Respondents of the Study

The respondents of the study are the teachers in Darasamutr School Sriracha, Chonburi, Thailand. The desired sampling size is 300.

Validity and Reliability Test

As regards the validity of the questions in the questionnaire, the researcher intends to distribute the draft to 25 respondents who will not be part in the actual number of respondents. The responses of these initial respondents will be analyzed and if there are items that are found ambiguous, these items will be changed, rephrased or simplified.

The researcher will utilize the reliability formula in determining the reliability of each question in the questionnaire. The services of a statistician will be needed in this portion of the study as well as in the portion wherein the statistical treatment of responses will be employed.

The survey questionnaire done by the researcher was initially checked by the research adviser followed by the immediate revision. The researcher then looked for the
experts to validate the questionnaires. After the validation, the researcher asked help from Thai person for the translation of the questionnaire.

**Data Analysis Tools**

The data will be gathered through the questionnaire and tallied using the following tools:

**Weighted Mean.** It will be use to determine the level of involvement of teachers in the participatory decision-making and level of organizational commitment of respondents.

**Analysis of Variance (ANOVA).** It is used to analyze the significant difference of the level of organizational commitment of respondents when grouped according to academic qualification and teaching experience.

**Pearson r-** It is used to find the significant relationship between the participatory-decision making and organizational commitment of respondents.

**Summary of Findings**

The findings of the study are presented as follow:

1. The overall mean value for participatory decision making is 3.67 or often which was obtained from 3.86 or often for teaching domain and 3.48 or sometimes for managerial domain.
2. The overall mean of teachers’ organizational commitment is 4.42 or very high which was obtained from 4.47 or very high for normative commitment, 4.45 or very high for affective commitment and 4.35 or very high for continuous commitment.
3. When analysis was done by academic qualification, the computed F-ratio for normative commitment is 0.331 or not significant with p-value 0.719; the F-ratio for affective commitment is 0.098 or not significant with p-value of 0.906 and the F-ratio for continuous commitment is 0.614 or not significant with p-value of 0.542. since the overall p-value for teacher commitment is higher than .05, therefore the null hypothesis is accepted.

When grouped by teaching experience, the computed F-ratios are 14.02 or significant with p-value of .000 for normative commitment; 10.18 or significant with p-value of .000 for affective commitment; and 4.408 or significant with p-value of .013 for continuous commitment. Its overall F-ratio is 12.101 or significant with p-value of .000. Results show that teacher commitment has significant difference when analyzed by teaching experience.

When grouped by decision making level, the computed F-ratios are 1.494 or not significant with p-value of .226 for normative commitment; 3.753 or significant with p-value of .025 for affective commitment; and 1.229 or not significant with p-value of .294 for continuous commitment. Its overall F-ratio is 2.259 or not significant with p-value of .106. Data show that the decision making level of the respondents are normally the same in their commitment in terms of normative and continuous commitment. On the other hand, the commitment of the
respondents to the organization in terms of affective commitment varies in relation to the decision making level they are being involved.
4. The computed r-value for the correlation between teaching domain and overall mean scores of teacher commitment is 0.484 or significant; 0.289 or significant between managerial domain and overall mean scores of teacher commitment. The overall participatory decision making was correlated to the overall organizational commitment of teachers and the computed r-value is 0.406 or significant. It means that the influence of participatory decision making to the organizational commitment of teachers is substantial or marked relationship.

Conclusions

Based on the foregoing findings, the following conclusions are drawn:
1. The teachers are often involved in participatory decision making in terms of teaching and managerial domains.
2. Teachers’ organizational commitment is very high.
3. The academic qualification and decision making level have no significant difference in teachers’ commitment in the organization.
4. The teaching experience has a significant difference in teachers’ commitment in the organization.
5. The correlation between participatory decision making and organizational commitment of teachers is substantial or marked relationship. It implies that participatory decision making of teachers influence the high level of teachers’ commitment in Darasamutr School Sriracha, Chonburi, Thailand.

Recommendations

Based on the foregoing findings and conclusions, the following recommendations were offered:
1. The teachers are being committed in the organization when they are involved in decision making. This prompts then that the administrators should involve the teachers in teaching and managerial areas and design programs to enhance the level of participation in decision making of teachers.
2. Administrators should conduct seminars, workshops and conferences to encourage teachers to be more active in participatory decision-making for self-actualization and professional development.
3. The significance of difference in the teacher commitment in the organization shows that there is a significant difference on the teaching experience of the teachers. This further presents that the teachers with 1-10 years of teaching experience ranks the lowest in their commitment to the organization compared to the teachers with 11 years and above. This prompts then that administrators should encourage new teachers to take an active part and be involved in school decision making.
4. The correlation between participatory decision making and organizational commitment of teachers in Darasamutr School Sriracha, Chonburi, Thailand is substantial. Teaching domain and managerial domain type of participatory decision making was not given fairly attention by the administrators. It is
important to both teachers and administrators to give attention to these participatory decision making styles for the organizational commitment of teachers in terms of normative commitment, affective commitment and continuous commitment. The future researcher could replicate this study using other participatory decision making styles with private, public, Christian or Non-Christian, International or Bilingual schools.
The Development of Internal Supervisory Process for Prapatsornwittaya School in Srinuan Temple, Khon Kaen Province

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ABSTRACT

This research implemented methodology of action research to its procedure based on the purpose of developing internal supervisory process for Prapatsornwittaya School in Srinuan Temple, Khon Kaen Province. The process consisted 4 steps included planning, action, observation and reflecting.

Target group for this research was 25 administrators and teachers from Prapatsornwittaya School in Srinuan Temple, Khon Kaen Province. Structured interview form, note form for activities, cooperative observation form and questionnaire were used as research instruments for collecting data. Data was analyzed through significant findings distribution before checking by triangulation technique. Method of collecting data consisted of interview, observation and questionnaire. The findings were presented in the format of descriptive analysis. Data which collected from questionnaire technique was consequently analyzed for figuring out percentage and standard deviation.

Research Findings found as follows:

The result of developing internal supervisory process for Prapatsornwittaya School in Srinuan Temple, Khon Kaen Province through the strategies of action meeting, study tour, workshop of creating student-base lesson plan, supervision and following up, and learning and sharing on teaching experiences. After completing a spiral of action research methodology, it could be summarized that: 1) Those of target group realized and appreciated the importance of internal supervision. Knowledge also was created as well as the cooperation of developing internal supervisory process for all steps. 2) School could clearly and effectively form and organize the activities of internal supervision such as cooperative supervision and staff could work happily and help each other. So the management of instructional activities could be effectively made and student could get as much benefit as it could be.

Keywords: The internal supervisory process development
Life-long Education as Non-formal and Informal Learning

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ABSTRACT

The concept of ‘life-long education,’ or ‘life-long learning,’ is becoming as familiar to the public health profession as it undoubtedly is to the education profession. It is, however, familiar to another category of individual: that of the person who feels impelled to develop his or her capabilities beyond the merely functional. By doing so, such a person willingly engages in a process of real human growth, achieving a superior level of understanding of the human condition via a process of self-education which is (necessarily) both life-long and informal. If increasing numbers of people can be persuaded to do this, a human culture much more capable of attaining UNESCO’s aspiration of ‘education for sustainable development’ can potentially emerge.

With regard to this theme, this paper considers the (perhaps radical) viewpoint that human individuals in general currently demonstrate problematic potential in their capability to achieve UNESCO’s aspiration. It advances the viewpoint that life-long learning, in (necessarily) informal contexts, is in fact a fundamental requirement for the further development of human individuals and societies. Why this should be so becomes apparent from reviewing the work of some important figures, as exemplars of human endeavour, in the fields of education and psychology. These authors, who have done much to improve our understandings of the human condition, have each advanced, via the fruits of their empirical research, sound reasons for adoption of their recommendations, yet the significance of their work remains obscure.

The paper suggests that only by incorporating such recommendations, initially into formal education, and thereafter as an informal life-long discipline, can human beings learn enough about themselves to be able to overcome the array of functional problems that have inevitably resulted in the current turmoil of the world. Thus, teachers and other professionals, in aspiring to cultivate an ‘enhanced learning community for sustainable development,’ must recognise that their efforts in ‘human resources development’ will only be fruitful if they themselves become exemplars for the improvement of entire human societies.

Keywords: education, life-long, human growth, exemplars, cooperation, tolerance

Introduction

UNESCO has suggested that ‘We have to learn our way out of current social and environmental problems.’ How education might learn to do this, and what approach it might take, are the principal issues addressed in this paper. Such an approach would naturally include a means of achieving ‘education for sustainable development’ and contribute towards development of an ‘enhanced learning community.’ The paper accordingly advances the argument that the only realistic approach available for this purpose is that of the pursuit of life-long learning by individuals within non-formal or (predominantly) informal settings (in contrast to education conducted within formal settings such as schools, universities etc.). While formal education is time-constrained,
there are no such constraints on informal education undertaken throughout life. ‘Life-long learning’ naturally suggests engagement with the *process* of education (however we may define it) at all stages of the human life span. Crucially, however, it also implies, recognises and includes the parallel influence of exposure to the vicissitudes\(^1\) of life, encountered within a variety of different circumstances and settings. These two factors inevitably make the enterprise of ‘life-long learning’ acquired in non-formal or (mostly) informal settings strikingly different from education associated with traditional ‘formal’ settings, because they offer greatly enhanced opportunities for achieving real human growth, a parallel theme in this paper. Authentically maturing individuals who actively pursue life-long learning, not merely as a goal, but as a *raison d’etre*, an avocation, will inevitably discover certain unsuspected (unconscious) psychological characteristics about themselves that have the potential to exert powerful influences upon their behaviour. The following two examples serve to illustrate this phenomenon:

\[ a) \quad \text{Choice of Alternative Behaviours (as distinct from the merely habitual)} \]

A significant outcome of informal, life-long education is that an individual acquires an expanded repertoire of choices of response in various situations. *Reasoned response* rather than *habitual reaction* to a given proposition is the hallmark of the ‘life-educated’ individual. Reasoned response can be regarded as a process in which rational thought supervenes the irrational impulse which often occurs within that (unconscious) temporal interval existing between the receiving of a stimulus and the effecting of a response (which is generally in the nature of an unconscious reaction), as illustrated in the following simple schema:

\[
\begin{array}{c}
\text{Stimulus} \\
\text{Reaction}
\end{array}
\]

In this process, *in which unconscious processes usually and exclusively predominate*, the following alternative procedure may become possible thanks to an expanded repertoire of possible behavioural choices acquired via life-long education:

\[
\begin{array}{c}
\text{Stimulus} \\
\downarrow \text{Conscious Inhibition of Initial Reaction} \\
\downarrow \text{Substitution of Reasoned Response} \\
\downarrow \text{Effecting of Reasoned Response}
\end{array}
\]

\[ b) \quad \text{Recognition of Conditioned Behaviours} \]

In the case of animal and human development, there is little doubt that *conditioning* is an unavoidable consequence of early life development. This matter, from imprinting in young birds and animals to the complex behavioural socialising process in humans, has been so exhaustively investigated by researchers, across many natural and social science disciplines, that it need not be discussed further here. It gives rise, however, to such comments as ‘he is exactly like his father.’ Achieving freedom from the strictures of behavioural conditioning (in which functioning mimics that of the parent, like that of a secondary robot) is one of the most difficult challenges confronting human beings seeking

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\(^1\) *Vicissitudes*: changes which happen at different times during the life or development of someone or something, especially those which result in conditions being worse; eg losing your job is just one of the vicissitudes of life (*Cambridge Advanced Learner's Dictionary*)
real maturity. This is so because not only are such behaviours largely unconscious, but also perhaps actively encouraged by the parent. It is far more difficult to recognise (and overcome) than the dramatisation of merely alternative behaviours, for it requires recognition of the fact that virtually all such behaviours are vicarious experiences of the parent, so that an individual must constantly ask of him or herself: ‘Who is talking in this situation?’ Remedial interventions are generally beyond the reach of formal education.

These two familiar examples are sufficient to suggest circumstances in which unconscious mannerisms may exert powerful influences upon the behaviour of the individual. The inheritance of such archaic behavioural patterns is a potential impediment to authentic human growth, which, therefore, also potentially militates against the individual’s ability to demonstrate the qualities of cooperation and tolerance (see later) when these are required, eg in effectively responding to UNESCO’s declaration that ‘We have to learn our way out of current social and environmental problems.’ Some approaches thought to be worthy of consideration for this purpose are discussed in the remainder of the paper.

Brief Review of Relevant Literature
It would be useful, as in any scientific enquiry, to be able to conduct an investigation of the efficacy of different approaches to life-long learning in achieving real human growth. But this seems impossible, because the type of human development we are advocating as necessary here is not the outcome of mere accumulation of knowledge or specific professional skills or acumen. Nor is it likely, because of its very nature, to be achieved in the short term. It is therefore necessary to turn to the examples provided by people who are able to function, as a consequence of their dedication to life-long learning, as exemplars\(^2\) of human endeavour. Thus, while no studies of experimental procedures purposed toward producing people of the required talent, ability or vision may be available (or perhaps even possible), there does exist a large and substantial literary corpus of examples of exemplary accomplishment, as evidenced in the writings of many extraordinary individuals in various human cultures. A brief review of some of the work of three significant (Western) authors is considered sufficiently illustrative for our purposes here. The apparently different approaches to the achievement of human growth promoted by each of the three authors are not really so disparate, as they approach the subject matter with increasing depth of consideration, with correspondingly increasing demands upon the reader. Serious consideration of their work reveals exactly why informal self-education, pursued as a life-long enterprise, is indispensable to real human growth. It also suggests how human individuals might explore their own approach to enhancing their ability to become agents capable of realistically creating an ‘enhanced learning community.’

Three Exemplars of Human Accomplishment in Informal Education
‘All people who have turned out worth anything have had the chief hand in their own education’ (Sir Walter Scott).

The following three authors have each achieved recognition for the quality, novelty and erudition of their work. This is particularly the case in regard to the Swiss psychiatrist C.

\(^2\) exemplar: a typical or good example of something (Cambridge Advanced Learner's Dictionary)
G. Jung (considered to be the leading successor to Sigmund Freud in the field of psychology). While only the briefest summary of their work can be given here, they are included because each has contributed valuable opinions concerning different aspects of human education, the human condition, and real human growth, which we can learn from.

John Dewey (1859 - 1952)
The American educational philosopher John Dewey made significant contributions to the philosophy of experiential education through his progressive views about why and how education should be transformed. He was in his mid-seventies when he wrote and published *Art as Experience*, which is considered by many to be one of his most important books, and in which he evinced many revolutionary ideas about teaching. Dewey believed that true learning comes from a passionate quest for knowledge that develops a desire for life-long learning (italics added), and that ‘the primary responsibility of educators is that they a) be aware of the importance of environmental conditions in influencing actual experience, and b) recognise, in the concrete, what surroundings are conducive to having experiences that lead to growth (Experience & Education, 1938). With regard to (formal, school) education, Dewey considered that ‘schools should focus on judgment rather than knowledge, so that students become adults who can pass judgments pertinently and discriminatingly on the problems of human living (School & Society, 2008). He believed that education must include participation and cooperation (to help students learn to live and work cooperatively with others) for reasons that ‘people need contact with groups of individuals so that (they) can broaden (their) own personal ideas.’ In this way, personal and societal growth are encouraged (italics added). Dewey also believed that ‘in a complex society, the ability to understand and sympathise with the operations and lot of others is a condition of common purpose which only education can procure’ (School & Society, 2008).

In summary, then, not only did Dewey believe in the introduction of experience into the traditional educational system (being the responsibility of the educator to create and develop experiences that will lead to learning throughout life); he also believed in creating a stronger sense of community through cooperative learning.

Abraham Maslow (1908-1970)
The American psychologist Abraham Maslow became known for his work on what he called ‘self-actualisation’ in human beings. He advanced a specific argument in relation to the scope of education: ‘Descriptively, we can see in each person his own (weak) tendencies towards self-actualisation, and…..his own (weak) tendencies towards regressing (out of fear, hostility or laziness). It is the task of educators to ally themselves with the former, and to be conducive to individual growth’ (Maslow, 1976). Empirical support for this notion is offered: ‘Clinical experience and also some experimental evidence teach us that the consequences of making growth choices are ‘better’ in terms of the person’s own biological values (italics added) eg physical health, absence of pain, discomfort, anxiety, tension, insomnia etc.. He would enjoy longevity, lack of fear, pleasure in fully-functioning along with other recognised health characteristics such as good appearance, more pleasure and happiness etc. That is, if a person could see all the likely consequences of growth and all the likely consequences of (simply) coasting or of regression, and were allowed to choose between them, he would always (in principle, and under ‘good conditions’) choose the consequences of growth and reject the consequences
of regression. The more one knows of the actual consequences of growth-choices and regression-choices, the more attractive become the growth-choices to practically any human being (italics added). And these are the actual choices he is prone to make if conditions are good; eg if he is allowed truly free choice so that his organism can express its own nature’ (Maslow, 1976).

Maslow suggests that an important and basic purpose that education may serve is to acquaint individuals with actual knowledge of the various possibilities open to them, as ‘growth choices,’ and which are then available for consideration for subsequent, fundamental life-choices. Maslow additionally proposed, in association with such ‘growth choices,’ a manner of thinking which he called ‘Being-cognition’ (or ‘B-cognition’), which is holistic and accepting, as opposed to the evaluative ‘Deficiency-cognition’ (or ‘D-cognition’), along with values he named ‘Being-values’ (or ‘B-values’), which include wholeness, perfection, completion, justice, aliveness, richness, simplicity, beauty, effortlessness, playfulness, truth and self-sufficiency. In keeping with the general aims of humanistic psychology, Maslow considered that people possess the inner resources for growth and healing and that the point of therapy is to help remove obstacles to individuals' achieving them.

In asking ‘What’s the practical upshot for education of all these considerations?’ Maslow comments: ‘we have) the rather startling conclusion…..that the teaching of spiritual values, of ethical and moral values, definitely does (in principle) have a place in education, perhaps ultimately a very basic and essential place. As a matter of fact, it is possible that precisely these ultimate values are and should be the far goals of all education (italics added), as they are and should be also the far goals of psychotherapy, of child care, of marriage, the family, of work, and perhaps of all other social institutions’ (Maslow, 1976). He considered that ‘Education must be seen as at least partially an effort to produce the good human being, foster the good life and the good society. Renouncing this is like renouncing the reality and the desirability of morals and ethics. Furthermore; ‘an education which leaves untouched the entire region of transcendental thought (italics added) is an education which has nothing important to say about the meaning of human life’ (Maslow, 1976).

Carl Gustav Jung (1875-1961)
When the Swiss psychiatrist C. G. Jung was asked what his life’s ambition was, he replied ‘To be as conscious as possible.’ The prevailing, general mood of the scientific community is to regard ‘consciousness’ as somehow being a property of the material, and the significant progenitor of all our achievements, and ‘unconsciousness’ (usually referred to as the ‘subconscious’) as an inferior substrate of consciousness. Jung’s significant achievement was to revolutionise our understanding of the nature of the human psychic unconscious with his introduction of the concepts of the ‘collective unconscious’ and the ‘archetypes.’ These two concepts were developed throughout intensive life-long study. He differentiated the personal unconscious, as a more or less superficial layer of the unconscious which was associated with personal experiences, from the collective unconscious, the repository of the archetypes, which is inborn, possessing contents and modes of behaviour (the archetypes) that are more or less the same everywhere and in all individuals. He regarded the archetype as ‘essentially an unconscious content that is altered by being perceived, and it takes its (characteristic) from the individual
consciousness in which it happens to appear’ (Jung, 1972). Being unconscious and relatively autonomous; these entities may exert profound influences on human behaviour throughout life.

The idea of integrating the archetypes into human consciousness, so that they no longer were autonomous, unconscious entities, but perceived and known, was central to his concept of individuation: ‘I will try to explain the term ‘individuation’ as simply as possible as……the psychological process that makes of a human being an ‘individual’ - a unique, indivisible unit or ‘whole man.’ Jung considered that ‘they cannot be integrated simply by rational means, but require a dialectical procedure……a real coming to terms with them’ (Jung, 2004) Undertaking such a process, as a life-long endeavour, was regarded by Jung as an essential prerequisite towards achievement of the higher stages of human growth. Space prohibits more than this briefest of introductions to the main concepts of Jung’s psychology; it is sufficient to say here that he regarded the process of individuation as an essential, life-long struggle to integrate, or combine, the universal with the personal unconscious elements of the human psyche, so that the previously divided self became unified in a greater conscious whole.

Other Exemplars of Life-long Learning
Other interesting, different examples of life-long learning may easily be found within, for example, the performing arts (such as music, dance, fine art) and business enterprises. It is the norm to hear of people who pursued their own, life-long enquiries well into older age. There are those people who, although apparently not necessarily gifted in the above areas, are undeniably so in other fields. Here is a case of a man (who no doubt would be delighted to refer to himself as ‘a life-long student’) who gained his PhD (2009: literature) in Melbourne, Australia, at the age of 91. Another gained his PhD (2007: transport studies) in Adelaide, Australia at the age of 89. There would be very numerous examples, easily researched, to be found throughout the world.

Discussion
(Emergent Themes from the Literature: Implications for Education (and Public Health)
The above three exemplary individuals pursued a profound process of self-educative, empirical research as a serious life-long endeavours. The order in which they appear corresponds to the increasing depth of their considerations with respect to the demands of human growth. What were some of the characteristics of these three exemplars, and probably also of people in general who undertake life-long education (usually in the form of developing a personal project?)

- They were actively engaged in empirical work: none would claim to have superior prior knowledge. They were in the category of explorers who discovered, through their efforts, what existed, what worked and what did not;
- They were productive: their output never stopped. There was no question of ‘retirement’ here - the research simply proceeded as their ‘life’s work;’
- Above all, they were passionate: being deeply and irrevocably committed to their individual enterprise. There was a deep inner drive and conviction which impelled them to do the very best they could all their lives: True passion is required to sustain such an arduous enterprise.
Abraham Maslow referred to such people as ‘self-actualising’: ‘Self-actualising people enjoy life more - not that they don't have pain, sorrow, and troubles, just that they get more out of life. They appreciate it more; they have more interests; they are more aware of beauty in the world. They have less fear and anxiety, and more confidence and relaxation. They are far less bothered by feelings of boredom, despair, shame, or lack of purpose. They never tire of life. They have the capacity to appreciate the sunrise or sunset, or marriage, or nature, again and again’ (Goble, 1970, 2004). And, in Maslow’s opinion; ‘that society is good which fosters the fullest development of human potentials, of the fullest degree of humanness’ (Maslow, 1976).

In summary, in the work of the three exemplars reviewed there is much to learn. These is Maslow’s formulation of the ‘being values’ and, ultimately, the spiritual, as essential resources for educational and growth choices, which were derived from clinical experience and experimental evidence. There is Jung’s concept of individuation, whereby the disparate elements of the human psyche are no longer potentially (or actually) at war with each other, but become unified in the whole person. Jung (who described himself as an empiricist, not a philosopher) conducted extensive research throughout his life. There is Dewey’s insistence upon the primacy of experiential learning in education, which found practical validation in the work of F. M. Alexander, an Australian educator (‘…My theories of mind-body, of the coordination of the elements of the self and of the place of the ideas of inhibition and control of overt action, required contact with the work of F. M. Alexander……to transform them into realities (Dewey, 1939).

Intuitively, there is little doubt that such abilities cannot be achieved overnight or within the comparatively short space of time accorded by an individual’s contact with formal education. It is a lifetime enterprise, achievable only via life-long education oriented precisely toward development of an individual’s ability to mature and express the resultant improved qualities. Informal education, then, pursued faithfully as a life-long goal, is perhaps the only means available to us to achieve the necessary growth. Education, therefore, in its formal aspect, should prepare the individual for this future struggle. At this point we may finally enquire about the relationship between education and health, because there is little doubt that the two are linked.

Education In Relation to Public Health

When we consider the importance of what life-long education in particular achieves, it becomes increasingly obvious that the issue of the health of individuals and their societies is a paramount consideration - a sine qua non which, nevertheless, is infrequently addressed in the educational literature. The assumption is, of course, that we are generally dealing with healthy individuals who are capable of receiving the benefits of education in any context. Yet quite possibly the role of education as a determinant of health is recognised more by the public health community than by educators. The authors Marmot & Wilkinson have considered this matter in their researches, citing some studies of the association between educational attainment and various social advantages or disadvantages. The logical point of convergence for education and public health is most probably to be found in the domain of health promotion: UNESCO considers that ‘Education and basic medical information are powerful ways to drive behavioural change. The school environment itself must be safe and healthy. Schools should act not only as centres for academic learning, but also as supportive venues for the provision of
essential health education and services, in collaboration with parents and the community.’ In collaboration with the public health community, then, educators can assist in the development of new and improved health promotion models as well as refinement of those currently in use.

With further reference to UNESCO, we are unlikely to learn our way out of current social and environmental problems and learn to live sustainably by means of the current human behavioural model. Distilling the essence of the brief encounters with exemplars, we may conclude that it should be the goal (of education) to produce individuals who are truly able to exemplify the qualities necessary to live in harmony. The author Aldous Huxley comments that ‘Newspapers and other media are the source by which millions of men, women and children in capitalist countries derive their working philosophy of life’ (Huxley, 1945). However, the daily news, which regularly shocks us all, is full of examples of unreasoned, intolerant and uncooperative behaviours, the result of unending conflicts over territory, possessions and resources, which we simply cannot understand if we live by superior self-governing principles. This consideration leads us to advance a statement of what might be the requirements for the achievement of such a goal, and these are co-operation and tolerance.

1) Cooperation
This is a higher value which cannot be practised solely at the level of the individual. It is a collective value, which only has meaning and which therefore can only be practised at the collective, community and population level. Maslow considered that ‘for many empirical reasons, basic human needs can be fulfilled only by and through other human beings ie society. The need for community…is itself a basic human need (Maslow, 1976). The ability to teach people how to live cooperatively is therefore a pressing educational challenge.

2) Tolerance
The ability to overcome difficulties and better tolerate whatever we perceive to be strange or unwanted is an acquired skill. As mentioned previously, people can learn to replace unconscious reactions with reasoned responses. Such a scenario is achievable only via experiential means, which accords with Dewey/s philosophy of education. Increasing freedom from the influence of unconscious behavioural patterns which are detrimental to the demonstration of tolerance is a tangible result of life-long education.

Conclusion
We have developed two principal requirements within the scope of this paper:

1. the fundamental need for education to produce human beings who are capable of functioning at a level higher than the current, partially unconscious type, whose behaviours lie at the root of the entire world’s problems;
2. the concomitant need to adopt and apply the twin principles of cooperation and tolerance as guiding principles for future development of human society.

The type of education being advocated here is necessarily life-long, extending over the entire human life span, and is difficult. It cannot be conducted in the formal sense, but is necessarily informal. It requires dedication and perseverance (as demonstrated by the
three exemplary authors) in the presence of constant challenges and innumerable distractions. It holds the possibility of developing, as a result of real human growth, superior judgement in people, so that truly human and mature responses to challenges become possible. It also necessarily holds the promise of orienting one’s life toward achievement of better societies, based upon the dual principles of cooperation and tolerance. Maslow (1976) considered that ‘that society is good which fosters the fullest development of human potentials, of the fullest degree of humanness.’ Such a society will also be more capable of demonstrating resilience against coming challenges such as, for example, global warming. If such indeed becomes possible, then, in the words of British physicist David Bohm: ‘...the way could be opened for a world view in which consciousness and reality would not be fragmented from each other (Bohm, 1980:xii). We certainly could not ask for more than this, nor, given the present state of the world, should we ask for less.

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3 in the sense of having the capability of orienting oneself to, and choosing, higher values (eg Maslow);
4 in the sense of being free of archaic, conditioned reactive behaviours, and capable of reasoned judgement (eg Dewey, Maslow).
5 a ‘resilient system’ is one able to ‘adjust its functioning prior to, during, or following changes and disturbances, so that it can sustain required operations even after a major mishap or in the presence of continuous stress’ (Hollnagel, 2008b).
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THE IMPLICATIONS OF THE ROLES OF TEACHERS IN THE TWENTY FIRST CENTURY TO SCHOOL ADMINISTRATORS: A THAI CONTEXT

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ABSTRACT

The purpose of this descriptive study was to investigate the significant difference in the roles of teachers in the 21st century when analyzed by age, gender and academic performance level in three selected government schools in Latkrabang District, Bangkok, Thailand.

The overall mean roles of teachers in the twenty first century from the five indicators that the researcher had chosen namely, teacher as classroom facilitator, teacher as curriculum manager, teacher as classroom manager, teacher as classroom guidance counselor and teacher as Thai culture preserver was often which means the different roles were performed within the frequency level.

When analysis was done by age, the overall computed t-value for the roles of teachers which was obtained from the five indicators namely, teacher as classroom facilitator, teacher as curriculum designer, teacher as classroom manager, teacher as classroom guidance counselor and teacher as Thai culture preserver was .769 or not significant with .769 p-values. When grouped by gender the overall computed t-value which was obtained from the same indicators mentioned above was -1.639 or not significant with p-value of .103. When grouping was done by academic performance level, the overall computed F-ratio was 1.685 or not significant with .188 p-values.

Based on the foregoing findings, the following conclusions are drawn: The different roles of teachers in the twenty first century in a Thai context are often performed inside the classroom. The age, gender and academic performance level of the students are not significant factors of difference in the roles of teachers in the twenty first century.

Based on the foregoing findings and conclusions, the following recommendations were offered:

First, since the roles of teachers in the twenty first century are often performed, school administrator should have a careful planning in staff development program such as pre-service and in-service trainings, seminar-workshops and teachers’ forum to uncover teaching and learning problems, to give assistance to meet the teachers’ needs and to match teaching methodologies, strategies and techniques to students’ learning preferences which are suited for the twenty first century skills.

Second, school administrators should make programs that provide time and funding for teachers to visit students and parents on their own home to learn more about
their students, get the parents more involved in their kids' education, and bridge cultural
gaps that might occur between student and teacher.

As more and more people think corporal punishment yields more negative effects
than positive, corporal punishment in school should be gradually substituted by more
positive classroom management techniques. There is a need to think about alternatives to
minimize the use of corporal punishment in classrooms.

And lastly based on the findings, the teachers roles in the twenty first century were
performed with in the frequency level, school administrators should intensify in trainings,
seminars and other staff development program to maintain it or even increase it to very
high level.

Introduction

Educational institutions are one of the places where children’s behavior and future
educational success is shaped. They have a gigantic responsibility in delivering quality
educational services to the students. They must provide better knowledge, information
and skills, to prepare children to compete in a complex educational world.

Unfortunately some of the obstacles to meet these quality educational needs are
curricula that are out of step with the rapid growth of new knowledge in academic
disciplines and instructional methods, inadequate or outdated laboratories, libraries, and
technological facilities in schools, daily schedules that leave teachers with little time for
planning, evaluating, and keeping abreast of advances in their fields. Teachers too belong
on the list. They must change in response to new knowledge and skills, new technology
suited for the twenty first century. (Commitment to the Role…Retrieved November 2009
http://www.onu.edu/a+s/cte/knowledge/facilitators.html).

According from National Education Reform Committee, Thailand in
Teachers and Teacher Education for the New Millennium 2008, one of the persistent and
incurable problems in Thai education is the poor quality of teachers and educational
personnel. The problem began with the urgent demand for a large number of teachers
around 40 years ago. The teacher education programmes then had to be reduced into 4
years to produce new teachers faster and thus meet the demand. Sadly, the present 4 year
teacher production curriculum failed to produce new teachers with sufficient amount of
content knowledge and teaching skills.

With the poor quality of teachers and the many changes in the fast
changing world of the early twenty first century, it is comprehensible that the quality of
education becomes poor too. Because of this, the researcher thought that the roles of
schools, education and the roles of teachers must be reinvented for the sake of our
children, our students, our country and the welfare of the world as well.

How can we possibly prepare our students, when the teachers, who are the
most important resource of knowledge don’t know their roles in imparting knowledge to
their learners? Should teachers embrace new teaching strategies that are radically
different from those employed in the 20th century classrooms? Should the curriculum become more relevant to what students will experience in the 21st century?

Since, teachers are the most important resource in the teaching-learning process, it is very necessary, that teachers must keep abreast of what is happening in the 21st century. They must know that their new challenging role as teachers in the 21st century requires changes in teachers’ knowledge and classroom behaviors. If students are to be productive member of the 21st century, they must move beyond the skills of the 20th century and master those of the 21st century.

Thus, this study was conducted to investigate the different roles of Thai teachers in the twenty first century in selected schools in Latkrabang District, Bangkok, Thailand. Specifically, it answered the following questions:

**Research Questions**

1. What is the demographic profile of the students in terms of:
   - Age
   - Gender
   - Academic Performance

2. What is the extent of demonstrating the roles of teachers for the 21st century when grouped by:
   - 2.1 Classroom Facilitator
   - 2.2 Curriculum Designer
   - 2.3 Classroom Manager
   - 2.4 Classroom Guidance Counselor
   - 2.5 Thai Culture Preserver?

3. Is there a significant difference in the roles of teachers in the 21st century when analyzed by:
   - 3.1 Age
   - 3.2 Gender
   - 3.3 Academic Performance Level?

**Hypotheses**

Ho: 1. There is no significant difference in the roles of teachers for the twenty first century when analyzed in terms of:
   - 1.1 Age
   - 1.2 Gender
   - 1.3 Academic Performance

**Objectives of the Study**

The main objective of this study is to determine the significant difference in the roles of Thai teachers in the twenty first century in the selected government schools in
Latkrabang District, Bangkok, Thailand. Specifically, it aims to achieve the following objectives:

1. Determine the significant difference in the roles performed by Thai teachers in the twenty-first century to give insights to teachers on how to perform their roles in their highest potential to build a strong foundation of learning suited in the twenty-first century setting among students.
2. Identify the different roles of teachers that are performed inside and outside the classroom that could serve as guidance for teachers as they practice teaching profession.
3. To produce research-based data on teachers’ roles in the twenty-first century to give insights to school administrators that could improve teaching and learning process.

Theoretical/Conceptual Framework

This study is anchored in the theory of Bent, et al., (1970), as cited by Aquino, (1988) that teachers are the most important part of the learner’s educational environment. Without them, the other elements of the educational environment would be ineffective, for they guide, direct, and stimulate youth in their goal seeking.

This study investigated the roles of teachers in the twenty-first century in a Thai context. Shown in Figure 1 is the conceptual framework of the study. This study deals with single variable which is the roles of teachers in the twenty-first century with the following indicators, namely: classroom facilitator, curriculum designer, classroom manager, classroom guidance counselor and Thai culture, as a Thai teacher.
Scope and Limitation of the Study

This study focused on the roles of Thai teachers in twenty first century in selected government schools in Latkrabang District, Bangkok, Thailand. Therefore the results could not be generalized to all government schools in Thailand.

Only selected Grade 6, 7, and 8 students presently studying in the selected schools participated in the study. The respondents were Thai students presently studying their Grade 6, 7 and 8 in the participating schools in Latkrabang District, Bangkok, Thailand. Therefore, the findings could be generalized to all students of different nationalities.

Significance of the Study

The output of this study is beneficial to the following persons:

School Administrator. The result of this study will provide information to the school administrators for faculty development program on retooling teachers with necessary skills for in the twenty first century

Curriculum Developer. The result of this study will provide information to the teachers as curriculum developers on the holistic view of 21st century teaching and learning that combines a discrete focus on 21st century student outcomes, a blending of specific skills, content knowledge, expertise and literacies with innovative support
systems to help students master the multi-dimensional abilities required of them in the 21st century.

**Teachers.** The results of this study will help teachers to become more effective in planning, organizing learning materials, presenting lessons to develop 21st century skills among students.

**Students.** The result of this study will give students helpful insights how to apply knowledge to new situations, analyze information, solve problems and make decisions enabling them to cope with the demands of the 21st century.

**Researcher.** The results of this study will help future researchers to conceptualize researches in line with roles of teachers in the 21st century based on Thai context using other indicators not covered in this study.

**Research Design**

The survey design is used in this study. This method describes the trends in a large population of individuals. In this case, a survey is a good procedure to use. Survey design is a procedure in quantitative research in which the researcher administers a survey or questionnaire to a small group of people called the sample to identify trends in attitudes, opinions, behaviors, or characteristics of a large group of people called the population (Creswell, 2008). Therefore, this design is appropriate in this investigation the fact that it determines the implications of the roles of Thai teachers in the twenty-first century to school administrators in the selected government schools in Latkrabang District, Bangkok, Thailand.

**Research Respondents**

The researcher used purposive sampling to determine the target population involved in this study. The respondents were chosen on the basis of their knowledge of the information desired. The research investigated the implications of the roles of Thai
teachers exhibited in the classroom to school administrators, so the students of the appropriate level were contacted. Therefore, this sampling design is appropriate in the study.

To determine the number of respondents, the researcher used Slovin’s equation. The respondents of the study were the selected Grade 6, 7 and 8 Thai students in three selected government schools in Latkrabang District, Bangkok, Thailand. There were 200 identified respondents. Sample respondents were from three identified schools as shown in Table 1.

Table 1 Distribution of Respondents by Schools

<table>
<thead>
<tr>
<th>Name of Schools</th>
<th>Number of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watpakbueng School, Latkrabang District, Bangkok, Thailand</td>
<td>65</td>
<td>32.5</td>
</tr>
<tr>
<td>Watsutaphot School, Latkrabang District, Bangkok, Thailand</td>
<td>65</td>
<td>32.5</td>
</tr>
<tr>
<td>Kehachomchon School, Latkrabang District, Bangkok, Thailand</td>
<td>70</td>
<td>35</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100</td>
</tr>
</tbody>
</table>

Research Instruments

The researcher constructed a questionnaire which was composed of two parts. It was in a form of a checklist using the Likert Scale. Part 1 dealt on personal information and Part 2 dealt on the different roles of teachers in the twenty-first century in a Thai context. The roles of teachers had five indicators namely: Classroom Facilitator had eight questions, Curriculum Designer had nine questions, Classroom Manager had seven questions, Classroom Guidance Counselor had ten questions and Thai Culture Preserver had eleven questions.
To gather data on the roles of teachers, the researchers formulated a questionnaire. Modification was made by translating it into Thai language for better understanding among respondents.

To determine the roles of Thai teachers in the twenty first century was based on the average weighted mean. These scores were used using the numerical rate with descriptive equivalents as reflected on the next page.

**Statistical Treatment of Data**

The data gathered were aggregated using the following statistical tools:

- **Weighted Mean.** This was used to determine the roles of Thai teachers in answer to research question number two.
- **t-test.** This was used to determine the significant difference of the roles of teachers in the 21st century when grouped by gender.
- **Analysis of Variance (ANOVA).** This was used to determine the significant difference in the roles of teachers in the twenty first century when grouped by academic level performance.

**Statistical Significance**

In the statistical test, the significance of the difference is set at the .05 Alpha levels.

**Summary of Findings**

The findings of the study are presented as follows:

1. The mean value for the roles of teaches in the twenty first century was 3.94 or often which was obtained from the classroom facilitator with a mean of 3.91 or often, 3.93 or often for curriculum designer, 3.93 or often for classroom manager, 3.91 or often for guidance counselor, and 4.01 or often for Thai culture preserver. The overall roles of teachers in the twenty first century was 3.94 or often.

2. When analysis was done by age, the computed t-value for classroom facilitator was .092 or not significant with .927 p-value, the t-value for curriculum designer was 1.600 or not significant with .111 p-value, the t-value for classroom manager was 1.255 or not significant with .211 p-value, the t-value for guidance counselor was .396 or not significant with p-value of .693 and the t-value for Thai culture preserver was .201 or not significant with .841 p-value. The overall computed t-value for the roles of teachers in the twenty first century was .769 or not significant with .443 p-value.

3. When grouped by gender, the computed t-value for classroom facilitator was -2.279 or significant with a p-value of .024, -1.708 for
curriculum designer or not significant with p-value of .089, and the computed t-value for classroom manager was -1.522 or not significant with a p-value of .130, for guidance counselor, the t-value was -1.475 or not significant with a p-value of .142, and -.590 or not significant for Thai culture preserver with .556 p-value. The over all computed t-value was -1.639 or not significant with a p-value of .103.

When grouped by academic performance level, the computed F-ratio for classroom facilitator was 1.170 or not significant with p-value of .313, the F-ratio for curriculum designer is .992 or not significant with p-value of .373, the F-ratio for classroom manager is 2.481 or not significant with p-value of .086, the F-ratio of guidance counselor is 1.321 or not significant with p-value of .269 and the F-ratio for Thai culture preserver is 3.015 or not significant with a p-value of .051. The over all F-ratio is 1.685 or not significant with a p-value of .188.

Conclusions

Based on the foregoing findings, the following conclusions are drawn:

1. The different roles of teachers in the twenty first century in a Thai context are often performed inside the classroom.
2. The age, gender and academic performance level of the students are not factors of difference in the roles of teachers in the twenty first century.
3. Avoiding corporal punishment for students committed mistakes is sometimes performed by the teachers.
4. The role of teachers in conducting home visitation for those students who are always late, absent, and misbehave in class is sometimes performed.

Recommendations

Based on the foregoing findings and conclusions, the following recommendations were offered:

1. Since the roles of teachers in the twenty first century are often performed, school administrator should have a thorough planning in staff development program such as pre-service and in-service trainings, seminar-workshops and teachers’ forum to uncover teaching and learning problems, to provide assistance to meet the teachers’ needs and to match teaching methodologies, strategies and techniques to students’ learning preferences which are suited for the twenty first century skills.

2. Schools should make programs that provide time and funding for teachers to visit students and parents under their own turf to learn more about their students, get the parents more involved in their kids’ education, and bridge cultural gaps that might occur between student and teacher.
As more and more people think corporal punishment yields more negative effects than positive, corporal punishment in school should be gradually substituted by more positive classroom management techniques. There is a need to think about alternatives to minimize the use of corporal punishment in classrooms.

References

The Pronunciation of the Stop Consonants in Thai by Native English Speakers

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ABSTRACT

The objectives of this study were to study the pronunciation of the stop consonant as the initial of the second syllable of two syllable words with [sa] as the first syllable /p, t, k/, /pʰ, tʰ, kʰ/ and /b, d/, and the pronunciation of the final stop consonants [p, t, k] in Thai by native English speakers (NES), to analyze the influence of L1 over the learning of L2 with regard to the pronunciation of both initial and stop consonants, and to compare the pronunciation of the NES who have studied Thai less than one year with those with over two years.

The results showed that the had less Thai pronunciation problem in voiceless unaspirated stop /p, t, k/ as the initial of the second syllable of a two-syllable word with [sa] as the first syllable, and have a major Thai pronunciation problem in voiceless aspirated stop /pʰ, tʰ, kʰ/ as the initial of the second syllable of a two-syllable word with [sa] as the first syllable. The results prove that NES transfer their first language to their second language as there are rules in English, where the voiceless stops /p t k/ are aspirated at the beginnings of words. They are unaspirated after /s/ in consonant cluster at the beginning of a syllable. NES seemed to pronounce the two syllable Thai words as monosyllabics with /s p, s t, s k/ cluster initials.

This study emphasizes the importance of the phonological rules in Thai with respect to stop consonants in both, syllable initial and final position in learning Thai as a second/foreign language. The proper understanding of the phonological contrasts between English and Thai will facilitate the learning of Thai by NES.

Keywords: Language Transfer, Interlanguage, Thai Stop Consonants

Introduction

Many foreigners have come to Thailand for business and career opportunities. These foreigners have to encounter the fact that in order to communicate effectively with the Thais, they need to learn how to speak the Thai language. Foreigners living in Thailand have to know at least some Thai, to live comfortably with the Thai people.

Learning to pronounce Thai correctly is difficult for foreigners. According to Brown (2000), one of the factors that causes difficulties is the difference between the phonology of their native language (L1) and that of the second language/foreign language (L2), which in this case is Thai. Brown proposes six factors that may hinder or facilitate learner’s pronunciation of L2 which are: L1, age, exposure to L2, innate phonetic ability, identity and language ego for L1, motivation, and finally the concern for good pronunciation ability. One aspect of the Thai language that is difficult for many
westerners is to master the pronunciation of stops at both syllable initial and final positions.

At syllable initial position, there are three contrastive manners of articulation for the stop consonants in Thai. For example, at the bilabial place of articulation, there are /b, p, pʰ/ contrastive phonemes in Thai. However, there are only two contrastive stop consonants in English at syllable initial position for the same place of articulation which are /p, b/. The aspirated [pʰ] is a phonetic variant of /p/ in English (Ladefoged 2006).

In this study, the pronunciation of both initial and final stop consonants are investigated acoustically on NES of Thai; five males and five females who have resided in Thailand no more than a year in comparison with another group of five males and five female who have resided in Thailand for at least two years. The hypothesis underlying the study is that language transfer from L1 to L2 may have been a major cause for the difficulties in pronunciation of the stop consonants. The results of the study find implications in pedagogy, in teaching Thai to non-native speakers, especially those with English as L1.

Objectives

1. To study the pronunciation of the Thai stop consonants, /p, t, k/, /pʰ, tʰ, kʰ/ and /b, d/, as the initial of the second syllable of a two-syllable word with [sa] as the first syllable by NES.

2. To study the pronunciation of the final stop consonants [p, t, k] in Thai by NES.

3. To analyze the influence of L1 over the learning of L2 with regards to the pronunciation of stop consonants.

4. To compare the pronunciation abilities of NES who have studied Thai less than 1 year to those who have studied Thai for at least 2 years.

Hypotheses

1. NES will carry over from L1 phonology in pronouncing the stop consonant as the second consonant in the initial cluster of what is actually a two-syllable word with [sa] as the first syllable and may release the final obstructed consonants at syllable final position in a word.

2. NES have difficulties in controlling the neutralization of contrast of obstruents at syllable finals in Thai.

3. Years of exposure to Thai language contributes to the better control of the stops in both initial position of a second syllable in a two-syllable word with [sa] as the first syllable and in the syllable final positions.

Scope of Study

The following research examines initial stop consonants and final stop consonants of Thai as pronounced by NES. This study is limited to the study of /p, t, k, pʰ, tʰ, kʰ, b, d/ as second syllables in stop consonant, as the initial two-syllable word with [sa] as the first syllable and obstructed consonants /f, p, pʰ, b, s, t, tʰ, d, k, kʰ/ at syllable final position.
The subjects of the study are limited to two groups. Group one comprises NES who have resided in Thailand and have attended the Thai language classes for less than a year, age 20-60 years, five males and five females. The second NES group comprises those who have lived in Thailand and have been attending the Thai language classes no less than two years, age 20-60 years, five males and five females in all.

Methodology

Data Collection

Test tokens

The first set of test tokens comprises of 8 types of two syllable-words with [sa] as the first syllable and a CVV second syllable with each of the stop consonants /p, t, k, pʰ, tʰ, kʰ b, d/ as the initial. There are two words for each type, 16 words in all. The second set comprises of 10 types of CVVC words, each ends with one of the 10 obstruent consonants, /p, t, k, pʰ, tʰ, kʰ b, d, f, s/. There are 3 words for each type, 30 words in all.

Subjects

This research study four groups of subject age 20-60 years: group A, five NES males who have lived in Thailand for more than two years; group B, five NES females who have lived in Thailand for more than two years; group C, five NES males who have been in Thailand for less than a year; and group D, five NES females who have been in Thailand for less than a year. All are taking Thai lessons as a second language in Bangkok.

The Subjects are NES, originally from the United Kingdom, US, Canada, Australia and New Zealand. The subjects’ occupation varies from teachers, Christian ministers, academic tutors, businessmen and women, NGO staff and missionaries. According to the interview, the subjects were highly motivated to study Thai. The majority of them mentioned that Thai was essential for their living in Thailand and admitted that they enjoyed learning Thai even though it was difficult for them.

Native Thai pronunciation samples

The subject chosen to be the exemplar speaker of Thai for comparison with NES pronunciation was a native Thai teacher who has been teaching Thai language in a government school for over 30 years. For more than 7 years, she has been heading a program called “Morphasa” (Thai language clinic), which is supported by the Thai ministry of culture.

Recording

Each subject was to pronounce each test token embedded in a sentence frame three times. Altogether, (30x3+16x3) 138 tokens for each subject and (138x10x2) 2,760 tokens in all for all subjects.

The recording of the test tokens was carried out in a quiet room with a digital...
Subjects first filled out a questionnaire, which was tailored to the subject’s personal information which included information regarding language exposure, experiences and use. Then subjects proceeded to the recording task, which consisted of reading out loud the word list.

**Data Analysis**

The recordings were made with a Sony NWZ-B135F recorder. For each of the word read and recorded, it was digitally stored in an individual .wav file. For each subject, all the files were saved in the same folder. Twenty folders in all.

**Acoustic Analysis**

The sound files were analyzed using speech analysis program Version 3.0. The waveform and spectrogram for each test token was investigated and a statistical analysis was conducted on the data observed.

The waveform and spectrogram for each test taken by NES compared with the waveform and spectrogram of the same word pronounced by the native Thai speaker.

![Waveform and spectrogram of male subject from group C, /k/ [k] “ı” /n ´k/ pronounced [n ´k]](image)

![Waveform and spectrogram of the native Thai pronunciation sample, [k] “ı” /n ´k/ pronounced [n ´k]](image)

Figures 1 and 2 a comparison of both sound waves and spectrogram for the final stop consonants [k], in un is displayed using the same word though differently token by the NES and a native Thai speaker.
**Figure 3** Waveform and spectrogram of female subject from group D, /s/ [t] “àÈÊ”

/sêt/ pronounced [sês]

**Figure 4** Waveform and spectrogram of the native Thai pronunciation sample, [d] “àÈÊ”

/sêt/ pronounced [sêt]

Figures 3 and 4 a comparison of both sound waves and spectrogram for the final stop consonants [d], in “เศษ” is displayed using the same word though differently token by the NES and a native Thai speaker.

**Figure 5** Waveform and spectrogram of male subject from group C, /sàʔp/ [sàʔp] “È»Ø” /sàʔpa/ pronounced [sàʔpa]

**Figure 6** Waveform and spectrogram of the native Thai pronunciation sample, [sp] “È»Ø” /sàʔpa/ pronounced [sàʔpa]

Figures 5 and 6 a comparison of both sound waves and spectrogram for the second syllable in stop consonant as the initial of the second syllable of two syllable word with [saʔ] as the first syllable [p], in “สปา” is displayed using the same word though differently token by the NES and a native Thai speaker.

s à ? p a
Figure 7  Waveform and spectrogram of female subject from group D, [sàʔt] “ÉµÔ” /sàʔtì/ pronounced [sàʔtì]

Figure 8  Waveform and spectrogram of the native Thai pronunciation sample, [sàʔt] “ÉµÔ” /sàʔtì/ pronounced [sàʔtì]

Figures 7 and 8 a comparison of both sound waves and spectrogram for the second syllable in stop consonant as the initial of the second syllable of two syllable word with [saʔ] as the first syllable [t], in สติ is displayed using the same word though differently token by the NES and a native Thai speaker.

This study compares every test taken by NES with the correct pronunciation of the native Thai speakers, and each result is displayed in statistic and graph.

Statistic Analysis

For each set of data obtained, a mean value (x) with standard deviation (S.D.) as well as percentage of correct/incorrect pronunciation were calculated for each group of subjects for each type of test tokens and subgroups of test tokens by manners of articulation; unaspirated, aspirated and voiced stop initial. For syllable final position, the manners include voiceless fricative. The statistics obtained are displayed in tables and bar graphs.

Results

The results are divided into two sets. The first concerning the pronunciation of stops in syllable initial of the second syllable in a [saʔ][CV(C)(C)] word. This set of data (cf. table 1) seems to indicate that NES carry over the phonology from L1 into L2 in pronouncing stop consonants in Thai in the said position. The second set concerns the neutralization of contrast of obstruent at syllable finals in Thai. The data (cf. table 1) seem to indicate that the control of the unreleased stop consonant final is dependent of years of exposure and experiences in the Thai language.
In the first set, subjects of group C and D are those NES who have attended Thai classes for less than a year. These NES are not yet fully aware of the Thai phonology concerning stop consonants and have made many incorrect pronunciation of stops in the said position. Especially, words that do not pattern after the phonological rule of the stop allophones in English (i.e. ë[sa-di], ë[sa-than], ë[sa-bon]).

Researcher found that subjects in group A could pronounced voiceless aspirated stop /pʰ, tʰ, kʰ/, voiceless unaspirated stop /p, t, k/ and voiced stop /b, d/ as the initial of the second syllable of a two-syllables word with [saʔ] as the first syllable in Thai quite well and better than other groups. Yet they still have some incorrect pronunciation as per the results, which is supported by Selinker (1972), in the theory of fossilization in one of the characteristic of interlanguage. Second language learners may stop short of the target-like competence for some linguistic domain (i.e. pronunciation). It seems that some language structures are especially difficult for second language learners to acquire, even when there is considerable input.

The study of pronunciation of obstruent consonant voiceless unaspirated stop /p, t, k, / at syllable final in Thai by NES found that subjects from group C and group D still transferred ways they pronounce in English into Thai so that they slightly made missed pronunciation of obstruent consonant voiceless unaspirated stop /p, t, k, / at syllable final in Thai. They still do voiceless aspirated stop instead of voiceless unaspirated stop. The researcher assumed that subjects from both groups was not aware of the phonological rule in Thai when they pronounced the Thai words test. While the other two group’s pronunciation were better, researcher assume that because they have been learning Thai for over two years, they had more opportunity to practice Thai with Thai teacher/people.

<table>
<thead>
<tr>
<th>Set 1: Initial Consonant of the second Syllable in a [sa][CV(C)(C)] word</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
<th>Group D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voiceless aspirated stop</td>
<td>56%</td>
<td>44%</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>Voiceless unaspirated stop</td>
<td>79%</td>
<td>21%</td>
<td>86%</td>
<td>14%</td>
</tr>
<tr>
<td>Voiced stop</td>
<td>60%</td>
<td>40%</td>
<td>42%</td>
<td>58%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Set 2: Final Consonant</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
<th>Group D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voiceless aspirated stop</td>
<td>92%</td>
<td>8%</td>
<td>76%</td>
<td>24%</td>
</tr>
<tr>
<td>Voiceless unaspirated stop</td>
<td>81%</td>
<td>19%</td>
<td>65%</td>
<td>35%</td>
</tr>
<tr>
<td>Voiced stop</td>
<td>82%</td>
<td>18%</td>
<td>74%</td>
<td>26%</td>
</tr>
<tr>
<td>Voiceless fricative</td>
<td>74%</td>
<td>26%</td>
<td>78%</td>
<td>22%</td>
</tr>
</tbody>
</table>

than those in group C and group D. According to Ellis (1986), interlanguages are not only systematic but also dynamic. They are developing systems undergoing modification as the second language learner gains further knowledge of the TL; this results in an interlanguage continuum. In other words, learners construct a series of interlanguages as they gradually increase the complexity of their L2 knowledge.

From the results, each group still had L1 influences over their learning of L2 in regards to pronunciation of final stop consonants. For group A, it is visible that L1 still had an influence in the way they pronounced L2, even though group A was most correct in their pronunciation in the words test. Ellis (1987) believed that the influence of Behaviorism is a part that makes
learners tended to transfer their old habits in the first language to the new habits in the second language. The similarity in NL would facilitate the acquiring in the TL. On the other side the differences between the two languages would interfere with L2 learning. L2 learners will thus rely on the knowledge of their first language and their prior experience to deal with L2 problems. So, L1 transfer becomes inevitable in L2 learning.

To compare the pronunciation abilities of the NES who have been studying Thai less than one year to those with over two years. Researcher found that group A and group B who have been studying Thai over two years had more abilities to pronounce Thai words than group C and group D, who had been studying Thai less than one year.

Researcher wanted to suggest ways to facilitate L2 learning with regard stop consonants in Thai especially among NES. The results from chapter 4 showed that group C and group D made many incorrect pronunciations voiceless aspirated stop in Thai, and one of the reasons of that is because subjects from both group pronounced voiceless unaspirated stop to voiceless aspirated stop. The mistake that happened allows assumptions that subjects transfer the way they pronounce English into Thai. If subjects were aware and acknowledged Thai phonology rule, they might not have missed the pronunciation in voiceless aspirated stop /p, t, k/ in Thai. Also NES have the need to forget some of their L1 rules and input L2 rules into their mind while pronouncing Thai. As Corder has suggested in 1971 that the identification of errors were important, for teachers to understand what kind of mistakes are made by the learners, since this makes it possible to determine the areas that need to be reinforced in teaching.

Discussion

According to Ellis (1987) there are three essential characteristics of interlanguage; ‘permeable’ in that the rules in interlanguage are not fixed. It constantly changes progressively as learners revise their individual rules approximating those of the target language. Interlanguage is also ‘dynamic’ and ‘systematic.’ Learners produce the language in ways that are predictable because they base their performances on the interlanguage rules they create. So the characters that the learners’ language depends on are rules that the learners create. Some of their interlanguage may be over-generalized and used in an inappropriate pronunciation, while others may be under-generalized and do not appear when they are required. In this study, an aspect of the interlanguage of the subjects studied is the similarity in the phonological features influenced by their, more or less, ‘same’ L1, English, displayed in the similar kind of errors made in the pronunciation of stop consonants in L2 which is Thai.

The results show that subjects in this study have less pronunciation problem in the voiceless unaspirated stops /p, t, k/ in the initial of the second syllable of a two-syllable word with [sa] as the first syllable, and have a major problem with the voiceless aspirated /pʰ, tʰ, kʰ/ in the same position.

The results seem to indicate that NES transferred their English phonetic variant rule for stop consonants into Thai, and analyzed the two-syllable word in Thai as monosyllabic with consonant cluster initial.

There four groups of NES aged 20-60 years were grouped by gender and time of taking residence in Thailand and attending the Thai language classes. From the results, group A, NES males who have attended Thai language classes no less than two years could pronounce Thai more correctly than other groups. This seems to indicate that group A are more advanced in their interlanguage in this regard. However, these subjects still
made mistakes and have not yet had complete control over the stop consonants. This illustrates interlanguage as an not quite the target grammar-in this case, phonology of the target L2 just yet (Ellis 1986).

Comparison between groups A and B, the NES males and females that attended the Thai language classes no less than two years, the result show that the male subjects (A) were better at their pronunciation for both initial and final stop consonants. This is quite interesting since females have always been reported to be better at language learning than males in socio-linguistic literatures (Maccoby and Jacklin, 1994). However, data from groups C and D, for males and females having resided in Thailand and learned Thai for less than a year, show that females were doing better than males as would be expected.

The personal informations obtained from the questionnaires may help explain the better performance of group A. Some males from group A have occupations that work with Thai people who cannot speak English at all, while most of the females were either teachers or businesswomen who work with people who usually speak English or can speak English. So group A had more opportunity to speak Thai with native Thai speakers than group B, and that may be one of the reasons that group A could pronounced Thai better than group B. Motivation, exposure to L2 and L2 experiences are the most probable explanation.

As for groups C and D, personal informations indicate that most of the males and females from both groups had just moved to Thailand and either worked as teachers or were volunteers in Bangkok. This means that these subjects did not have much opportunity to practice their Thai with Thai people, they may not know many Thai people. Besides, the environments in Bangkok do not necessitate the use of Thai since English is either spoken and/or understood by surrounding people in the communities. Less motivation, less exposure to L2 and less L2 experiences may possibly be the explanation of the low correction percentages.

Suggestions for further studies

It is noted that the age of the subjects in this study covers a wide range of ages 20-60 years, which is fairly broad. Age may also be another factor in successful rate of L2 learning. This variable should be controlled in future research.

Also, occupations of the subjects were not controlled in this study. Varieties of L1 background should also be another area for future study, native speakers of a variety of languages such as German, French, Korean, Japanese, etc. should also be taken into consideration. Finally, there is an important phonological rule for stop consonants in Thai that both instructors and learners should put emphasis on in teaching/learning Thai as a second/foreign language which is Thai obstruent neutralization rule where final obstruents are neutralized to voiceless unaspirated /unreleased stop consonants at syllable final.

Acknowledgement

I would like to express my deep gratitude to my supervisor, Associate Professor Apiluck Tumtavitikul, for her patience, kindness, constant support, continuous encouragement, guidance and persistent help throughout this study. My greatest
personal thanks to God who has carried me through every trial and hardship without Him, I would not be who I am today.

References

TOWARDS AN INVENTIVE POLICY ON TECHNICAL EDUCATION IN NIGERIA: EXPERIENCE FROM GLOBAL TREND

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ABSTRACT

The study is a comparative focused on the provision and principles guiding technical and vocational education programmes across the globe. The 143 countries constitute the target population for the study. The stratified random sampling technique was used to select 10 countries (14.3 percent) cutting across each of the six continents. Three research questions were used for data collection. Data were collected through secondary sources. Data were analyzed ISCED indicators using simple percentages while data on policy issues were content analyzed. The findings among others; were that lower secondary two depicted the least enrolment in TVE programme with 9 countries (90 percent) not participating in enrolment, while only one country (10 percent) did. Upper secondary showed the highest involvement in TVE programme provision with 8 countries (80 percent) reporting enrolment. The polices adopted by selected countries were found to be relevant, current, knowledge-based social/economic competitiveness and technologically inclined. The recommendation among others; Nigeria should consider the provision of technology education starting from lower secondary school and upgrade the knowledge and skills of TVE managers and professional staff to meet the requirement of managing the new strategy.

Keywords: Inventive policy, Technical Education, Global trend

Background of the study

Education is considered the key to effective development strategies, technical and vocational education and training (TVE) must be the master key that can alleviate poverty, promote peace, conserve the environment, improve the quality of life for all and help achieve sustainable development”

After years of benign neglect, due to a complex set of reasons that included budgetary constraints and criticisms of the World Bank in the early 90’s on its direction and focus, technical and vocational education and training (TVE) is back on the human resource development agenda of many African governments. The World Bank had cited at that time, high training costs, poor quality of training, the mismatch between training and labour market needs and the high rate of unemployment among TVE graduates as justification to recommend a policy shift away from school-based technical and
vocational education and training. However, there is now a fresh awareness among policy makers in many African countries and the donor community of the critical role that TVE can play in national development. The increasing importance that African governments now attach to TVE is reflected in the various Poverty Reduction Strategy Papers that governments have developed in collaboration with The World Bank. In its poverty reduction strategy document, Cameroon intends to develop vocational and professional training to facilitate integration into the labour market; Cote d’Ivoire talks about strengthening vocational training; countries that have prioritized TVE initiatives in their national development policy documents include Chad, Ethiopia, Guinea, Senegal, Sierra Leone, Uganda and Zambia, Japan, China, USA etc.

One of the most important features of TVE is its orientation towards the world of work and the emphasis of the curriculum on the acquisition of employable skills. TVE delivery systems are therefore well placed to train the skilled and entrepreneurial workforce that Africa needs to create wealth and emerge out of poverty. Another important characteristic of TVE is that it can be delivered at different levels of sophistication. This means that TVE institutions can respond to the different training needs of learners from different socio-economic and academic backgrounds, and prepare them for gainful employment and sustainable livelihoods. The youth, the poor and the vulnerable of society can therefore benefit from TVE.

Poor people, especially women and children, suffer most from various forms of social and economic deprivation, including hunger and malnutrition, inadequate healthcare, limited access to education, and low self-esteem. Young unemployed people without any productive usage of their time are easily entrained into crime and violence. The risk is greatest with unemployed youth in conflict or post-conflict areas. Poverty is therefore a threat to national stability and good governance. All over the world, governments have embraced the United Nations Millennium Development Goals (MDGs) that aim to significantly reduce the number of people living below the poverty line, improve access to education, promote gender equality, improve maternal and child health, ensure environmental sustainability and promote global partnership between developed and developing countries. The first goal of the MDGs is the eradication of extreme poverty and hunger. The key to poverty alleviation is economic growth and the creation of employment for all. However, poor people without employable skills cannot benefit from the growth process. The challenge then is to raise the productive capacity of the poor, the youth and the vulnerable of society through the acquisition of job-specific competencies.

Problem of the study

The situation in Nigeria today is such that many graduate are unemployed, the artisan lack skill in their respective crafts as such so many atrocities affecting the nation economic and social life are depicted everywhere. Hence the need to embark on this study to find out the level of the provision of technical/vocational programmes and principles guiding the implementation.
Objective of the study

Broadly the study aimed at Examining the level and nature of TVE programmes provided globally, and summarizing strategies and best practices in TVE programmes in African and international. Specifically it examined at:

i). Establishing the number and percentage of countries that provided TVE by level and ISCED5B programmes.

ii). Discussing the types of TVE programmes provided by countries across the global according to the number of index of diversification.

iii). Ascertaining the innovations and best practices from global experiences.

Research Questions:

1) What levels and types of TVE and 5B programmes do selected countries provided?
2) What are the types of combined, (index of diversification) of TVE programmes did selected countries provide?
3) What are the innovations and best practices of TVE programmes from global experiences?

Review of Related Literature

(A) Concept of Technical Education

Technical and vocational education and training (TVE) refers to a range of learning experiences which are relevant to the world of work and which may occur in a variety of learning contexts including educational institutions and the workplace.

It includes learning designed to develop the skills for practicing particular occupations, as well as learning designed to prepare for entry or re-entry or to act as a foundation for entry into further education and training undertaken by young people prior to entering the labour market and continuing vocational training undertaken by adults whilst in work or during periods when they are economically inactive. In other words, it encompasses both initial skills development and various forms of “re-skilling” and “up-skilling”. Green, Hodgson, and Sakamato (2000) considered training for the unemployed is a separate category and designated unemployed vocational training.

(B) Current Status of TVE in Africa

TVE systems in Africa differ from country to country and are delivered at different levels in different types of institutions, including technical and vocational schools (both public and private), polytechnics, enterprises, and apprenticeship training centres. In West Africa in particular, traditional apprenticeship offers the largest opportunity for the acquisition of employable skills in the information sector. In Ghana, the informal sector accounts for more than 90 percent of all skills training in the country.
With a few exceptions, the socio-economic environment and the contextual framework in which TVE delivery systems currently operate on the continent is characterized, in general, by:

- Weak national economies, high population growth, and a growing labour force;
- Shrinking or stagnant wage employment opportunities especially in the industrial sector;
- Huge numbers of poorly educated, unskilled and unemployed youth;
- Uncoordinated, unregulated and fragmented delivery systems;
- Low quality;
- Geographical, gender and economic inequities;
- Poor public perception;
- Weak monitoring and evaluation mechanisms, and
- Inadequate financing, poor management and ill-adapted organizational structures.

TVE in Africa is delivered by both government and private providers, which include for-profit institutions and non-profit, NGO and Church-based institutions. In almost all countries, non-government provision of TVE is on the increase both in terms of number of institutions and student numbers. This trend is linked to the fact that private providers train for the informal sector (which is an expanding job market all over Africa) while public institutions train mostly for the more or less stagnant industrial sector. Private providers also target “soft” business and service sector skills like secretarial practice, cookery, and dressmaking that do not require huge capital outlays to deliver. A limited amount of in-company or enterprise-based training also takes place in some countries; however, this type of training is often dedicated to the sharpening of specific skills of company employees.

(C) **International and African best practices and strategies**

The current status of TVE in Africa is not all about weaknesses. TVE systems in a growing number of countries are undergoing or have undergone promising reforms that are designed to build on the inherent strengths of the system. The major reforms concern the setting up of national training bodies, and the enactment of laws to strengthen national vocational training programmes. The need to link training to employment (either self or paid employment) is at the root of all the best practices and strategies observed worldwide.

National Training Authorities have been set up in many countries, including South Africa, Botswana, Namibia, Zambia, and Tanzania. Ghana has also recently passed an Act of Parliament that establishes a Council for Technical and Vocational Education and Training (COTVE) which will have overall responsibility for skills development in the country. In order to achieve greater coherence within the diverse TVE system, some countries have established National Qualifications Frameworks. The South African National Qualifications Framework provides a mechanism for awarding qualifications based on the achievement of specified learning outcomes prescribed by industry. The framework allows for accumulation of credits and recognition of prior learning, which promotes the culture of life-long learning. Employers also support vocational and
technical training financially by paying a levy of 1% on enterprise payrolls. In Benin, a Bureau d’Appui aux Artisans (BAA) has instituted an innovative system of complementing the skills of traditional apprentices and master craftsmen. A similar support system for the Jua Kali informal sector in Kenya was rated highly successful.

From outside Africa, two training models stand out for mention: the centralized Singaporean model and the dual system practiced in Germany. In Singapore, a National Manpower Council ensures that training is relevant to the needs of the labour market. Training also includes the inculcation of shared cultural values rights and respect for the rule of law, and the level of participation of trainees in the democratic process.

(D) The challenge of globalization

In Africa, globalization has created a tension between developing skills for poverty eradication and skills for global economic competitiveness. Although the primary objective of technical and vocational training in Africa is to help alleviate poverty through the acquisition of employable skills, a strategic approach to skills development on the continent cannot ignore the effects of globalization. In a globalizing world economy, the acquisition of “industrial” skills is also important. However, the sheer lack of skills of all sorts in Africa and the demands of poverty alleviation mean that African countries must pursue the development of skills at all levels of the spectrum (basic, secondary, tertiary levels), with each country emphasizing the skill levels that correspond best to their stage of economic development and the needs of the local labour market. ICT education at all levels is also important for survival in a globalizing labour market.

Another dimension of the implications of globalization for vocational training in Africa is the flooding of markets in Africa with all manners of cheap goods and technology products from foreign countries. The question arises as to how competitive locally produced goods will be against the cheaper imported versions? National policies should therefore take into account these and other globalization-induced factors in designing TVE programmes and courses.

In conclusion, this TVE strategy document provides a strategic framework for the development of national policies to address the challenges of technical and vocational training to support economic development and the creation of national wealth and contribute to poverty eradication. The document acknowledges that vocational education and training alone does not provide jobs or eradicate poverty. Good government policies do both. The strategy therefore urges governments to create an economic environment that promotes the growth of enterprises and generally stimulates the economy. When businesses develop and expand, additional labour-market demands for technical and vocational training emerge, new job opportunities are created, more people get employed, and the incidence of poverty reduces. For this to happen on a sustainable basis, however, the TVE system must be labour-market relevant, equitable, efficient, and of high quality. This strategy document provides the framework for the design and implementation of such national TVE systems.
METHODOLOGY

The study is a comparative focused on the provision and principles guiding technical and vocational education programmes across the globe. The 143 countries constitutes the target population for the study. The stratified random sampling technique was used to select 10 countries (14.3 percent) cutting across each of the six continents. Secondary data from UNESCO institute for statistics 2005, OECD 2004. Handbook for Internationally Comparative Education Statistics, are reports of interview conducted by individuals and committees were used as the sources of data collection. The level of participation of country was measured with the International Standard for Educational Classification (ISCED) System which is widely used as set of international educational classification which is developed by UNESCO and designed to provide an integrated and consistent framework for the collection and reporting of internationally comparable education statistics. To achieve this comparability, it adopts a taxonomy essentially based on programmes of ‘organized’ learning. Data collected through the UOE (UIS/OECD/Eurostat) surveys. The ISCED 97 categories programmes primarily by level, intended destination and programme orientation, the latter characterized as “general education” pre-vocational and vocational” education. Both pre-vocational and vocational learning fall within the definition of TVE adopted in this study. The second participation indicate percentages of technical/vocational enrolment or PTVE which involves country-level contextual variables namely Gross Domestic Product (GDP) per capital and Total Gross Enrolment Ratio of countries in TVE. The innovations/best practices in technical education by countries are analyzed through secondary data based largely on the books of various authors by Johnson and Admas (skills development in Africa and Europe.)

Presentation and Analysis of Data

Research Question 1: What levels and types of TVE and 5B programmes do selected countries provided?

Table 1: Distribution of number and percentage of countries that provided TVE by level and ISCEDB5B programmes

<table>
<thead>
<tr>
<th>No</th>
<th>Vocational enrolment at lower secondary (ISCED 2)</th>
<th>%</th>
<th>Yes</th>
<th>%</th>
<th>Data not available</th>
<th>%</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vocational enrolment at upper secondary (ISCED 3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vocational enrolment at post-secondary non-tertiary (ISCED 4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enrolment at tertiary ISCED 5B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: UNESCO Institute for Statistics database, 2005
Table 1 shown that 9 countries did not report enrolment in lower secondary (ISCED 2) TVE programme while only a country did. Upper secondary education (ISCED 3) on the other hand, was the highest TVE programme provided 8 countries (80%) reported enrolment in TVE programme while 2 (20%) countries did not however enrolment in TVE programme in post-secondary non-tertiary education (ISCED 4) was reported in 6 (60%) countries while 2 (20%) countries did not and 2 (20%) countries showed no record. Though ISCED does not apply the ‘programmes are not formerly classified as vocational, despite being defined as “practically-oriented/occupationally-specific” 7 (70%) countries was reported enrolment.

Research Question 2: What are the types of combined, (index of diversification) of TVE programmes did selected countries provide?

Table 2: Distribution of Typology of TVE provision, by region (number of countries)

<table>
<thead>
<tr>
<th>Index of diversification of vocational programmes</th>
<th>Ghan a</th>
<th>Nig .</th>
<th>S/ A</th>
<th>Ger a</th>
<th>Fr a</th>
<th>Ind .</th>
<th>Ja p</th>
<th>China</th>
<th>US</th>
<th>Br a</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No programmes</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>ISCED 2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ISCED 3</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>ISCED 4</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>ISCED 2 + 3</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>ISCED 2 + 4</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>ISCED 3 + 4</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>ISCED 2 + 3 + 4</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>0</td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>12</td>
<td>5</td>
<td>8</td>
<td>8</td>
<td>5</td>
<td>64</td>
</tr>
</tbody>
</table>

Source: UNESCO Institute for Statistics database, 2005

Table 2 showed that most common pattern of TVE programmes provided combined the three levels, lower secondary two (ISCED 2) with the two most-advanced levels: upper secondary (ISCED 3) and post-secondary non-tertiary (ISCED 4). The next frequent pattern of TVE programmes combined upper secondary and post-secondary non-tertiary followed by upper secondary which the least frequent enrolment. It is noticed that Nigeria has no enrolment pattern in TVE programmes has shown in table 2 however India depicts the highest pattern with 12 patterns, South African, Germany, France and China shared the same 8 pattern while Ghana, Japan, U.S and Brazil share the least five pattern each.
## Research Question: What are the innovations and best practices of TVE programmes from global experiences?

### Table 3: The innovations and best practices of TVE programmes from global experiences?

<table>
<thead>
<tr>
<th>Country</th>
<th>Innovation</th>
<th>Impact</th>
<th>Lessons</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>National Qualifications Framework (NQF) established to provide mechanism for awarding qualifications based on achievement of specified learning outcomes. Implementation of the NQF, which includes recognition of prior learning, lies with the South African Qualifications Authority (SAQA). Learning outcomes are specified by employer-dominated Sector Education and Training Authorities (SETAs). A skills development fund, alimented by a 1% levy on enterprise payrolls, has been instituted. Eighty percent of the levy goes to the SETAs for sector-specific training programmes while 20% is used to finance other skills development initiatives outside the enterprises being levied-principle of “cross-subsidization”.</td>
<td>Effective co-ordination of the TVE system, better coherence of the qualification structure, including accumulation of credits and recognition of prior learning. Greater market relevance of training programmes and financial involvement of industry in the development of skills.</td>
<td>The introduction of the NQF has been slow due to bureaucratic bottlenecks. Sustainability of the training levy depends on the continued cooperation of the enterprises being taxed.</td>
</tr>
<tr>
<td>Ghana</td>
<td>An apex body known as the Council for technical and vocational education and training (COTVE) has been established by an Act of Parliament under the Ministry of Education to oversee all TVE activities. A National Apprenticeship Training Board is to be established under COTVE to handle issues concerning registration, training content, duration and certification under the auspices of the Ghana National Training Authority. The National Vocational Training Institute (NVTI) currently allows for the proficiency testing of illiterate trainees, including traditional apprentices, who submit their skills to practical, non-written evaluation. The Opportunities Industrialization Centres (OICs) provide post-training support and follow-up services to their trainees.</td>
<td>COTVE is expected to address the issue of multiplicity of oversight responsibility and testing standards within the TVE system. Government has pledged to assume full responsibility for the first year of apprenticeship training. The NVTI initiative has allowed for illiterate trainees to enter the formal job market on the basis of their skills proficiency certificates. The transition from school to the world of work is eased by the OIC post-training support system.</td>
<td>It is early days yet to assess the effectiveness of COTVE. However, policy measures are needed to ensure that the proposed registration and regulation of private training providers does not result in the creation of a parallel formal system and a loss of diversity in training provision.</td>
</tr>
<tr>
<td>France</td>
<td>The Vocational Education and Training Authority (VETA) that has overall responsibility for coordinating vocational education and training has developed and tested new training approaches for the informal sector. The concept involved designing an integrated training programme (technical and managerial skills, and literacy if necessary) and finding local training providers for implementation. Attempts were made to link up trainees with credit and business development providers.</td>
<td>The quality of goods and services produced by the informal sector trainees involved in the programme improved, and sales and profits increased.</td>
<td>For the informal sector, a mix of technical and business skills (record-keeping, pricing, marketing, and customer relations) and literacy (if necessary) should be provided.</td>
</tr>
<tr>
<td>Brazil</td>
<td>The Braille NGO SITE (Strengthening Informal Training and Enterprise) ran a project to improve traditional apprenticeship training using master craftspeople recruited through Jua Kali associations as host trainers. The basic skills (technical skills, business skills, and teaching methods) of the host trainers were first upgraded. The objective was to strengthen the capacity of master craftspeople to provide quality training to their apprentices. In all, 420 master craftspeople were trained and 1400 apprentices received improved training from the trained host trainers.</td>
<td>Host trainers improved their training of apprentices by improving content and quality and concentrating training on productive activities. The number of their apprentices increased by between 15 percent and 20 percent.</td>
<td>Master craftspeople are not enthusiastic if training is only about technical skills. Also, collaboration with informal sector trade associations in the design and implementation of training programmes is of prime importance.</td>
</tr>
<tr>
<td>Country</td>
<td>Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benin</td>
<td>The Bureau d’Appui aux Artisans (BAA) seeks to complete the training of traditional apprentices. The BAA works through the various trade associations. The BAA links the master craftspersons and apprentices who are members of the trade associations to reputable public or private sector training providers for complementary training. The BAA’s role is limited that of financier and technical adviser while the trade associations implement and supervise the training through activities such as collaborating in the development of new training modules, participating in the selection of trainees, negotiating the fee for the instructors, monitoring the attendance of the apprentices, co-organizing the trade test at the end of the training, and participating in the evaluation of the training. Master craftspersons also benefited from the training, especially skills upgrading, but such training took place in the workshop of one of the participating master craftspersons. The training changed the approach and improved the methods of training of the master craftspersons. The apprentices who have received complementary training became more precise, responsible and confident. The notion of complementary training of their apprentices is new to master craftspersons, so they need to be “hooked” to the idea. Public and private sector providers of complementary training need to be well endowed with excellent training equipment and instructors with enhanced technical skills and well adapted teaching methodologies.</td>
<td></td>
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</tr>
<tr>
<td>India</td>
<td>A National Manpower Council brings together the Ministries of Manpower, Education, and Trade and Industry to determine manpower targets from the Institutes for Technical Education, the Universities and polytechnics. The Ministry of Education has the primary responsibility for ensuring longer term supply of skills in relation to national development targets. Training also involves the inculcation of shared cultural values and attitude development. Training is relevant to labour market needs. Attention to attitude development leads to a hardworking and disciplined workforce. Social capital or the development of shared national values is as important as human capital or technical skills formation.</td>
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</tr>
<tr>
<td>Germany</td>
<td>The dual system of vocational training in Germany allows for learning to take place in a vocational school and in production facilities or in the service industry concurrently. Trainees receive training in a company three or four days per week and at a part-time vocational school one or two days per week. Training in the dual system is open to all young people. Job centres help in arranging placements for training and companies themselves also offer trainee positions. Training agreements must be signed between the company and the trainee. The purpose of the tuition received at the vocational school is to supplement the training received by students in companies at a theoretical level and to fill gaps in general education. The dual system is governed by legislation under the Vocational Training Act. Approximately 70% of all school leavers, aged 15 – 19 years undergo training under the dual system. Vocational training is linked closely to the world work. Dual training requires an industrial fabric that does not exist in many African countries. In company training can be expensive and companies must be willing to offer training.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>TCVT attracted wide attention in the country provided 441,100 technical schools for adult technical schools in rural and urban concentrated on interest of local and social development. Joint effort by stakeholders training comes first before placement. Solutions to problems skilled labour. Promotes new reform of administration training first employment second.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>Comprehensive and separate vocational schools. Enrolled upper secondary students in vocational education courses. Secondary school graduates begins work immediately after graduation career education through experiential learning. Objective American occupation education reform policy support vocational education allowance Act 1957 10% monthly allowance for teachers of TEVT in service training TEVT &amp; retraining centre for IT/Industry related education textbooks approves and subsides, Provision of learning is through creative productive experience independent study project knowledge is to promote understanding of fundament knowledge lecture / practice</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Establishment of vocational Technical Education as a Required subject

Production of Technology Education

Introduction of fundamental and Equal opportunity in Education

Introduction of fundamentals of information “into lower secondary school” and the “independent study project” into upper secondary school.

Technology Education Teaching Methods

Initial in-service Teacher Training

Educational center for technology Education.

Support for Technology Education with enactment of law in 1951

Education Act Allowance of 10% monthly salary every monthly.

Education centres for technology Education

Support for Technology Education with enactment of law in 1951

Education Act Allowance of 10% monthly salary every monthly.

Education centres for technology Education

From the various TVE programmes policies of the different countries analyzed it depicted that the policies at base on introduction regulatory bodies, embarking on complementary training, taking policy measures are device to regulate private trainers to avoid creation of parallel formal system. Provision of mix technical and business skills, visionary customary relation and literacy. Importance is placed on collaborating informal sector trade association in the design and implementation of training programmes. Complementary training for craft persons to have fundamental basic knowledge in their fields. Provision of quality equipment for instrument, recognized that social capital or the development of shared values is as important as human capital and technical formation, gives room for dual training, encourages new reform administration, training first work second. Provision of learning through creative productive experience, independent study, project knowledge on intership to promote in depth understanding and knowledge acquisition.

Summary and Discussion of findings

The study focused on provision of TVE programmes at secondary levels and post-secondary non-tertiary as well as discussion of policies guiding these programmes. Research question 1 shown that nine countries did not report enrolment in lower secondary (ISCED 2) TVE programme while only a country did. Upper secondary education (ISCED 3) on the other hand, was the highest TVE programme provided eight countries (80%) reported enrolment in TVE programme while two (20%) countries did not however enrolment in TVE programme in post-secondary non-tertiary education (ISCED 4) was reported in six (60%) countries two (20%) countries did not and two (20%) countries showed no record. seven (70%) countries reported enrolment in tertiary (ISCED 5).

The low enrolment in lower secondary in some countries may be regarded as too early a stage to offer TVE; other countries, however, offer vocational programmes within...
compulsory education ages as a way to provide marketable skills to children who may not pursue further studies. In developed countries, pre-vocational may outnumber vocational programmes at this level, but, since they are included with general; programmes, they remain undetected for purposes of international statistics. In most countries, the high enrolment in upper secondary near showed that this stage follows the end of compulsory education and may thus be regarded as a suitable point for curriculum diversification. Enrolment in vocational programmes in post-secondary non-tertiary education (ISCED 4) is reported in 80 countries. Vocational provision at this level, even though still rare, has recently been growing as a result of the creation of new programmes and the reclassification of existing ones, which were formerly labeled (ISCED 3) or 5B.

Research question 2 showed that most common pattern of TVE programmes provided combined the three levels, lower secondary two (ISCED 2) with the two most-advanced levels: upper secondary (ISCED 3) and post-secondary non-tertiary (ISCED 4). The next frequent pattern of TVE programmes combined upper secondary and post-secondary non-tertiary followed by upper secondary which the least frequent enrolment. It is noticed that Nigeria has no enrolment pattern in TVE programmes has shown in table 2 however India depicts the highest pattern with 12 patterns, South African, Germany, France and China shared the same eight pattern while Ghana, Japan, U.S and Brazil share the least five pattern each.

Research question 3 depicts the various TVE programmes of the different countries analyzed it depicted that the policies at base on introduction regulatory bodies, embarking on complementary training, taking policy measures are device to regulate private trainers to avoid creation of parallel formal system. Provision of mix technical and business skills, visionary customary relation and literacy. Importance is placed on collaborating informal sector trade association in the design and implementation of training programmes. Complementary training for craft persons to have fundamental basic knowledge in their fields. Provision of quality equipment for instrument, recognized that social capital or the development of shared values is as important as human capital and technical formation, gives room for dual training, encourages new reform administration, training first work second. Provision of learning through creative productive experience, independent study, project knowledge on internship to promote in depth understanding and knowledge acquisition.

The diverse nature of TVE with its longitudinal and transversal dimensions suggest that the implementation of any strategy to revitalize the sector is more likely to be successful within a national policy framework with clear implementation guidelines and policy roles for the various actors as well as action plans for resource mobilization and allocation. The national policy framework should address issues such as improving the operational flexibility and responsiveness of the entire TVE system as well as the efficiency of capacity utilization of individual TVE institutions in terms of their available human, physical, and financial resources through performance reviews and audits; strengthening the linkages between TVE and employment promotion; Upgrading the knowledge and skills of TVE managers and professional staff to meet the requirements of managing the new strategy; Re-orientation of funding mechanisms towards output-based funding, i.e. linking funding to performance; and Skills training in the non-formal and
informal sectors of the economy. Above all, state political commitment to the revitalization effort can make the difference between success and failure.

From the findings above, if poverty be eradicated and unemployment reduced, and technological driven in Nigeria, there is need to create and implement policies that would encourage innovations, access and development of technical and vocational education programmes in Nigerian.

Recommendations

The Nigeria Government should take it as a challenge to participate in the provision of technical and vocational education programme at the lower secondary school this is because experience in technology can only be gain by participating in it.

Importance should in placed collaboration informed sector trade association in the design and implementation of training programmes.

The formulation of such policy should be assigned to a task force with cross-sectoral representation of all major stakeholders, including representatives of public and private training providers, employers, government ministries responsible for human resource development, development partners, civil society, and experts. The report of the task force will then form the basis for the national TVE policy.

Dual training should be allowed. Encouragement for new reform administration training which is training first work second should be recognized.

Nigeria should create and implement policies that encourage innovations, access and development of technical and vocational education programmes in Nigerian Educational system.

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A Chinese Model of the Implementation of Teacher Education Policy: A Case Study Approach

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ABSTRACT

Since the 1990s, China’s teacher education has been undergoing radical transformations brought about by national policies for achieving educational excellence in the context of globalization and localization. This paper adopts a case study approach to investigate and compare how two teacher education institutions have implemented the national policy in the Chinese socio-political context from critical perspectives. The following research questions are examined to understand the implementation process: 1. in what ways the national policy is transferred to local policy players, and how the national policy is interpreted by local actors; 2. how the institutional missions and programs have been changed to implement the national reform; and 3. who mostly benefits from the implementation, and how. The author finds that the implementation of the teacher education policy is a one-way process with a top-down approach, and is employed as an instrument to redistribute political and financial resources in teacher education institutions.

The study concludes that there exists a Chinese model of policy implementation in the East Asian context, and unearths some hidden policy issues for better understanding the complicated process of implementation which is deemed as a key to achieving policy success.

Keywords: Implementation, Teacher Education, China, Case Study
The Development of Indicators for Instructional Leadership Behaviors of Municipal School Principals

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ABSTRACT

This research aimed to construct and develop indicators for instructional leadership behaviors of municipals school principals, and to test congruence of the model of relationship, linear structure, indicators for instructional leadership behaviors of municipal school principals of 920 principals and teachers at the schools that offered basic education under municipalities in northeast Thailand, obtained by using the stratified random sampling technique. The instrument used was a questionnaire. The collected data were analyzed by using SPSS Program and LISREL Program. The study was divided into 3 phases. Phase 1 constructed conceptual framework and drafted the indicators. Phase 2 developed the indicators. Phase 3 tested the congruence of the model with the empirical data.

The findings revealed that there were 5 major indicators for instructional leadership behaviors of municipal school principals: 1) determining the direction and policy, 2) creating the environment helping in learning, 3) developing the teaching profession and personnel, 4) curricular administration and learning organization, and 5) enhancing student quality. Each major factor had to have action through the variables which were 17 subfactors and 75 indicators. And the model had statistically significant congruence with the empirical data.

Keywords: Development of indicators, instructional leadership behaviors
A STUDY OF ENGLISH LISTENING-SPEAKING ABILITY AND ATTITUDE TOWARDS LEARNING ENGLISH OF THE FIRST YEAR ENGLISH PROGRAM STUDENTS IN THE FACULTY OF EDUCATION AT MUBAN CHOM BUENG RAJABHAT UNIVERSITY USING THE GENRE-BASED APPROACH (NEWS REPORT GENRE FEATURES)

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ABSTRACT

The purpose of this research was to study English listening-speaking ability and attitude towards learning English of the first year English Program students in the Faculty of Education at Muban Chom Bueng Rajabhat University using Genre-Based Approach (News Report Genre Features).

The samples used in this research were 35 first year English program students in the Faculty of Education at Muban Chom Bueng Rajabhat University. They were selected by Simple Random Assignment into the experimental group.

The instruments used in this research were lesson plans using Genre-Based Approach (News Report Genre Features), English listening ability test, English speaking ability evaluation form, and questionnaires on attitude towards learning English. The data were statistically analyzed by arithmetic mean, standard deviation and t-test for Dependent Samples.

The results of the research found that;
1. English listening-speaking ability of the first year English program students in the Faculty of Education at Muban Chom Bueng Rajabhat University using Genre-Based Approach (News Report Genre Features) after the experiment was significantly higher than before the experiment at the .01 level.
2. Attitude towards learning English of the first year English program students in the Faculty of Education at Muban Chom Bueng Rajabhat University using Genre-Based Approach (News Report Genre Features) after the experiment was significantly higher than before the experiment at the .01 level.

Keywords: English listen-speaking ability, Genre-Based Approach, News Report Genre Features
A STUDY OF ENGLISH LISTENING-SPEAKING ABILITY AND ATTITUDES TOWARDS LEARNING ENGLISH OF GRADE I STUDENTS AT BANBERKPRAI SCHOOL USING SONGS AND GAMES

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ABSTRACT

The purpose of this research was to study the English listening - speaking ability and attitudes towards learning English of grade I students at Banberkprai school using songs and games. The samples were 20 grade I students in the first semester of the 2010 academic year at Banberkprai school. They were selected by purposive sampling. The instruments used in this research were lesson plans using songs and games, English listening test, English speaking evaluation form, and observation form on attitudes towards learning English. Statistics used in this research was Z - test.

The results of the research were as follows;
1. Students’ ability in English listening – speaking using songs and games after the experiment was significantly higher than before the experiment at the .01 level.
2. Students’attitudes towards learning English using songs and games after the experiment was significantly higher than before the experiment at the .01 level.

Keywords: English listening - speaking ability, attitudes towards learning English, songs and games
An Evaluation and follow up The Sixth Graduates in College of Asian Scholars by Academic Year 2009

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ABSTRACT

The purpose of the present study was to evaluation and follow up The Sixth Graduates in College of Asian Scholars by Academic Year 2009 during January to March, 2010 by Descriptive Research design. 144 Graduates and 20 employers have been collected. The analysis carried out being used is: frequency, percent, arithmetic means, standard deviations and Chi – Square Test.

The results are as the following:
1. Most of sample were female (60.42%), 23 year old (29.9%), had the job (57.64%) content appropriate (40.28%), insufficient major subject for work (16.67%), work in company limited (32.64%), salary 8,000 bath (11.8%), extra income 3,000 bath (5.6%)
2. Graduates had strong agree opinions in curriculum, teaching and learning activities except moderately competency in English language.
3. Graduates opinions on teaching and learning activities had some problems: 1) Content overlap in major subject 2) Content inappropriate with credit 3) Content be boring 4) Insufficient major subject for practicum 5) Uncover content and unexpertise on teaching.
4. Graduates had strong satisfaction in College of Asian Scholars except 1) chauffeur service 2) retail shop 3) front academic office had moderately level.
5. Graduates satisfaction had influence by gender and faculty then graduates opinions on curriculum had influence by faculty.

Keywords: Follow up the Graduates, Satisfaction Evaluation
BACKGROUND AND SIGNIFICANCE OF THE PROBLEMS

College of Asian Scholars, Khon Kaen was founded by Professor Medical doctor Dr. Krasae Chanawongse. His strong ambitions in producing graduates to have the whole life Knowledge, service mind to serve social, ethics, disciplines and leadership. The college have to have the quality assurance of social confidence and potential of graduates. So the college of Asian Scholars have to assess and follow up graduated for high information Technology that useful to the administrators to judge and to improve the effective of curriculum, learning and teaching with the achievement relevanted to the standard policy of private university 2546. The Commission of Higher Education.

RESEARCH OBJECTIVES

1. To assess and follow up graduates in their works.
2. To assess the opinions about the problems of teaching and learning of graduates.
3. To assess the satisfaction of graduates.

RESEARCH METHADOLOGIES

This research is mix method research using quantitative research as a empirical study and qualitative research as a explanation. The sample such as:
1. The sample are the 6th graduates. Using cluster random sampling 135 persons
2. The trader who used the 6th graduates. Using purposive random sampling 20 persons.

Tools of this research are:
1. The questionnairs tools graduates
2. The interview questionnairs are collected by
   2.1 Questionnaires
   2.2 Depth Interview
   2.3 Observation and examination at the office
3. Analyse the data by using descriptive statistic. Analyse the relation of chi square test the qualitative data using content analysis (Inductive content analysis)

RESULTS OF THE STUDY ARE AS THE FOLLOWING:

1. Most of sample were female (60.42%), 23 year old (29.9%), had the job (57.64%) content appropriate (40.28%) Insuffi cient major subject for work (16.67%) work in company limited (32.64%) Salary 8,000 baht (11.8%) Extra incomes 3,000 baht (5.6%)

2. Graduates had strong agree opinions in curriculum Teaching and Learning activitives except moderately competency in English lauguase.

3. Graduates opinions on teaching and learning activities had some problems:
   1) content overlap in major subject
   2) Content inappropriate with credit
   3) Content be boring
   4) Insufficient major subject for practicum
   5) Uncover content and unexpertise on teaching
4. Graduates had strong satisfaction in college of Asian Scholars except 1) Chauffeur service 2) Retail shop 3) Front academic office had moderately level 5) Graduates satisfaction than graduates opinions on curriculum had influenced by faculty

CONCLUSIONS

1. The graduates had a chance to work (57.64%)
2. Graduates opinions on teaching and learning activities had some problem, Content overlap in major subjects, Content inappropriate with credit, Content be boring, Insufficient major subject for practicum, Uncover content and unexpertise on teaching
3. Graduates had strong satisfaction in College of Asian Scholars except 1) Chauffeur service 2) Retail shop 3) Front academic office had moderately level

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The International Civic and Citizenship Study: A Comparison of Thai and Hong Kong Students’ Attitudes to Citizenship Issues and their Influence on Civic Knowledge

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ABSTRACT

The International Civics and Citizenship Study (ICCS) was a large scale assessment of civic knowledge and attitudes conducted in 2008/2009 by the International Association for the Evaluation of Educational Achievement (IEA). It has been described in this way (Schulz, Ainley, Fraillon, Kerr & Losito, 2010, p.9):

The International Civic and Citizenship Education Study (ICCS) studied the ways in which countries prepare their young people to undertake their roles as citizens. It investigated student knowledge and understanding of civics and citizenship as well as student attitudes, perceptions, and activities related to civics and citizenship. It also examined differences among countries in relation to these outcomes of civic and citizenship education, and it explored how differences among countries relate to student characteristics, school and community contexts, and national characteristics.

The study “gathered data from more than 140,000 Grade 8 (or equivalent) students in over 5,300 schools from 38 countries. These student data were augmented by data from more than 62,000 teachers in those schools and by contextual data collected from school principals and the study’s national research centers (Schulz, Ainley, Fraillon, Kerr & Losito, 2010, p.9). ICCS was the third major international civic study – the other two having been conducted in 1971 (Torney, Oppenheim, & Farnen, 1975) and 1999 (Torney-Purta, et al., 2001). The first of these studies did not contain any Asian countries, the second involved only Hong Kong, by then a Special Administrative Region of China, and ICCS contained five Asian societies: Korea, Taiwan, Hong Kong SAR, Indonesia and

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1 Part of the research reported in this paper was supported by a Public Policy Research project funded by the Hong Kong Research Grants Council: Hong Kong Students’ Attitudes to Citizenship: Monitoring Progress Ten years after Hong Kong’s Return to China (HKIEd 8001-PPR-5)
Thailand. Thus for the first time it is possible to provide comparative perspectives on the civic knowledge and attitudes of students in Asia drawing on data generated from common survey instruments.

The Study

The purpose of this paper is report on a study using data generated by ICCS to compare two Asian societies - Hong Kong and Thailand – on a range of measures related to citizenship issues and to assess the relationship of these issues to students’ civic knowledge. This secondary analysis will focus on the raw scores of the selected measures obtained by students in the two societies rather than the country scale scores reported in the international study (Schulz, Ainley, Fraillon, Kerr & Losito, 2010). This will provide a more nuanced view of country level results and enable a range of comparisons not possible from the international analysis. In addition, new regression analyses will be conducted to explore the relationship between the selected measures used in this study thus providing some insight into local level influences on students’ civic knowledge in both Hong Kong and Thailand.

Method

Sample

2902 Hong Kong students from 76 schools and 5263 Thai students from 149 schools participated in the international survey (Schulz, Ainley, Fraillon, Kerr & Losito, 2010, p.96). For the purposes of this study 500 students were chosen at random from each group for analysis.

Measures

Students’ perceptions of the value of participation at school (5 items, $\alpha_{Hong Kong}=.75$, $\alpha_{Thai}=.65$; e.g. “Student participation in how schools are run can make schools better”). Students’ support for democratic values (5 items, $\alpha_{Hong Kong}=.70$, $\alpha_{Thai}=.59$; e.g. “Everyone should always have the right to express their opinions freely”). Students’ interest in politics and social issues (5 items, $\alpha_{Hong Kong}=.87$, $\alpha_{Thai}=.77$; e.g. “Political issues within your local community”). Students’ sense of internal political efficacy (6
items, $\alpha_{\text{Hong Kong}}=.81$, $\alpha_{\text{Thai}}=.71$; e.g. I know more about politics than most people my age).

*Students’ citizenship self-efficacy* (5 items, $\alpha_{\text{Hong Kong}}=.86$, $\alpha_{\text{Thai}}=.77$; e.g. “Discuss a newspaper article about a conflict between countries). *Students’ attitudes towards the influence of religion on society* (5 items, $\alpha_{\text{Hong Kong}}=.86$, $\alpha_{\text{Thai}}=.68$; e.g. “Religion is more important to me than what is happening in national politics”). For the multiple regression analysis, the students’ score on the civic knowledge test was chosen as the dependent variable.

**Analyses**

Both scale subscale-level *t-tests* were conducted to determine statistical significance of the difference between Hong Kong and Thai students on each of the measures outlined above. Cohen’s *d*, a measure of the actual size of the difference between the two groups was also calculated for each of the differences. Effect sizes at around $d=.20$ are considered small, those around $d=.50$ are considered moderate, and those around $d=.80$ are considered large (Cohen, 1988). A number of ordinary least squares regression analyses was conducted using students’ civic knowledge scores as the dependent variable. The independent variables were parental occupation, gender, citizenship and personal efficacy, value of participation in school, support for democratic values, interest in politics and attitudes to religion. Independent variables were entered in three blocks: Block 1: Demographics, Block 2: Efficacy and Block 3: Personal values. Using this method it was possible to assess the extent to which each block of variables added to the predictive power of the model for each sample of students.

**Results**

**Descriptive statistics**

Tables 1-6 show the descriptive statistics for each of the scales referred to above. There were four response categories for each question, with “1” representing the most positive endorsement and “4” representing the most negative endorsement.

As shown in Table 1, both Thai and Hong Kong ‘Students Perceptions of the Value of Participation at School’ were positive with respective scale scores of 1.71 and 1.88. There were statistically significant differences between the groups ($t=6.12$, $p<0.01$) but the effect size was small ($d=.39$). For one item in the scale, ‘All schools should have a
school parliament’, there was no difference between the two groups suggesting that this may be a common aspiration of both Thai and Hong Kong students. Given that the effect size of the differences between the groups was small, it seems the key difference between the groups is a matter of emphasis with Thai students being consistently more positive than Hong Kong students.

Table 1
Comparison of Hong Kong and Thai Students’ Perceptions of the Value of Participation at School

<table>
<thead>
<tr>
<th>ISSC Key</th>
<th>Scale</th>
<th>Hong Kong (n=500)</th>
<th>Thailand (n=500)</th>
<th>Mean Difference</th>
<th>Standard error</th>
<th>t</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q19: VALPART</td>
<td>Students’ perceptions of the value of participation at school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IS2P19A</td>
<td>Student participation in how schools are run can make schools better</td>
<td>1.97 (0.6) 48 9 0</td>
<td>1.76 (0.5) 49 2 8</td>
<td>0.21</td>
<td>0.04</td>
<td>5.35*</td>
<td>0.343</td>
</tr>
<tr>
<td>IS2P19B</td>
<td>Lots of positive changes can happen in schools when students work together</td>
<td>1.90 (0.6) 48 2 0</td>
<td>1.78 (0.5) 49 4 8</td>
<td>0.12</td>
<td>0.04</td>
<td>3.23*</td>
<td>0.207</td>
</tr>
<tr>
<td>IS2P19C</td>
<td>Organising groups of students to express their opinions could help solve problems in schools</td>
<td>2.03 (0.7) 48 0 0</td>
<td>1.79 (0.5) 49 4 8</td>
<td>0.24</td>
<td>0.04</td>
<td>6.07*</td>
<td>0.389</td>
</tr>
<tr>
<td>IS2P19D</td>
<td>All schools should have a &lt;school parliament&gt; Students can have more influence on what happens in schools if they act together rather than alone</td>
<td>1.55 (0.6) 48 7 0</td>
<td>1.56 (0.6) 49 0 8</td>
<td>-0.01</td>
<td>0.04</td>
<td>-0.25</td>
<td>-0.016</td>
</tr>
<tr>
<td>IS2P19E</td>
<td>Scale scores</td>
<td>1.93 (0.7) 48 5 0</td>
<td>1.64 (0.6) 49 3 8</td>
<td>0.29</td>
<td>0.04</td>
<td>6.49*</td>
<td>0.416</td>
</tr>
<tr>
<td></td>
<td>Scale scores</td>
<td>1.88 (0.4) 48 9 0</td>
<td>1.71 (0.3) 49 7 6</td>
<td>0.17</td>
<td>0.03</td>
<td>6.12*</td>
<td>0.393</td>
</tr>
</tbody>
</table>

** p<.01

Student support for the value of participation at school is also reflected in their ‘Support for Democratic Values’ as shown in Table 2. On this scale Hong Kong students tend to be somewhat more positive than their Thai peers with respective scale scores of
1.67 and 1.72. There were no statistically significant differences between the groups on this scale (t=-1.94). There were statistically significant differences on three items on this scale (‘right to express opinions freely’, t=5.24, p<.01; ‘freedom to criticize the government’, t=5.80, p>01; ‘protest against an unjust law’, t=6.51, p<.01) but the effect sizes are small d=.34, .37 and .41 respectively). It is of interest to note that the last mentioned item was the only that Thai students endorsed more positively than Hong Kong students. This suggests that there is a consensus on the part of both Hong Kong and Thai student in their support for democratic values with support from Hong Kong students being somewhat more emphatic that that of Thai students, except when it comes to protest where Thai students are more positive.

Table 2
Comparison of Hong Kong and Thai Students’ Support for Democratic Values

<table>
<thead>
<tr>
<th>ICCS Key</th>
<th>Scale</th>
<th>Hong Kong (n=500)</th>
<th>Thailand (n=500)</th>
<th>Mean Difference</th>
<th>Standard error of difference</th>
<th>t</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q20: DEMVAL</td>
<td>Students’ support for democratic values</td>
<td>Everyone should always have the right to express their opinions freely</td>
<td>1.37 (n=48)</td>
<td>1.56 (n=49)</td>
<td>-0.18</td>
<td>0.03</td>
<td>-5.24**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>All people should have their social and political rights respected</td>
<td>1.55 (n=48)</td>
<td>1.62 (n=49)</td>
<td>-0.06</td>
<td>0.04</td>
<td>-1.56</td>
</tr>
<tr>
<td></td>
<td></td>
<td>People should always be free to criticise the government publicly</td>
<td>1.80 (n=48)</td>
<td>2.07 (n=49)</td>
<td>-0.27</td>
<td>0.05</td>
<td>-5.80**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>All citizens should have the right to elect their leaders freely</td>
<td>1.51 (n=48)</td>
<td>1.58 (n=49)</td>
<td>-0.06</td>
<td>0.04</td>
<td>-1.65</td>
</tr>
<tr>
<td></td>
<td></td>
<td>People should be able to protest if they believe a law is unfair</td>
<td>2.11 (n=48)</td>
<td>2.10 (n=49)</td>
<td>0.31</td>
<td>0.05</td>
<td>6.51**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scale scores</td>
<td>1.67 (n=50)</td>
<td>1.72 (n=53)</td>
<td>-0.05</td>
<td>0.03</td>
<td>-1.94</td>
</tr>
</tbody>
</table>

**p<.01

Thai ‘Students’ Interest in Politics and Social Issues’ tends to be greater than that of Hong Kong students with respective scale scores of 2.15 and 2.40, as shown in Table 3. There is a statistically significant difference between these scores (t=6.55, p<.01) but the effect size was small (d=.42). There were statistically significant differences between three items on this scale (‘political issues in the local community’, t=7.99, p>01; ‘political issues in the country’, t=10.25, p<.01; ‘social issues in the country’, t=8.08, p<.01) and in
each case the effect size was moderate (d=.51, .65 and .51 respectively). This suggests that the differences between Thai and Hong Kong students relating to their interests in politics and social issues are important enough to differentiate the two groups on citizenship issues. “Interest in international politics’ was the only area in which Hong Kong students indicated they had more interest than Thai students, but there was not a statistically significant difference between the two groups on this item.

Table 3
Comparison of Hong Kong and Thai Students’ Interest in Politics and Social Issues

<table>
<thead>
<tr>
<th>ICCS Key</th>
<th>Scale</th>
<th>HK (n=500)</th>
<th>Thailand (n=500)</th>
<th>Mean SD</th>
<th>Mean SD</th>
<th>N</th>
<th>N</th>
<th>Mean Difference</th>
<th>Standard error of difference</th>
<th>t</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q22: INTPOLS Students’ Interest in politics and social issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IS2P22A</td>
<td>Political issues within your &lt;local community&gt;</td>
<td>2.33</td>
<td>0.8</td>
<td>47</td>
<td>2</td>
<td>8</td>
<td>1.94</td>
<td>0.6</td>
<td>49</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>IS2P22B</td>
<td>Political issues in your countries</td>
<td>2.41</td>
<td>0.8</td>
<td>47</td>
<td>1</td>
<td>8</td>
<td>1.91</td>
<td>0.7</td>
<td>49</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>IS2P22C</td>
<td>Social issues in your countries</td>
<td>2.27</td>
<td>0.8</td>
<td>47</td>
<td>2</td>
<td>8</td>
<td>1.87</td>
<td>0.6</td>
<td>49</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>IS2P22D</td>
<td>Politics in other countries</td>
<td>2.59</td>
<td>0.8</td>
<td>47</td>
<td>2</td>
<td>8</td>
<td>2.53</td>
<td>0.7</td>
<td>49</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>IS2P22E</td>
<td>International politics</td>
<td>2.44</td>
<td>0.8</td>
<td>47</td>
<td>9</td>
<td>7</td>
<td>2.48</td>
<td>0.7</td>
<td>49</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Scale scores</td>
<td>2.40</td>
<td>0.6</td>
<td>47</td>
<td>8</td>
<td>7</td>
<td>2.15</td>
<td>0.5</td>
<td>49</td>
<td>2</td>
<td>1</td>
<td>0.26</td>
</tr>
</tbody>
</table>

Thai students ‘Sense if Internal Political Efficacy’ tends to be higher than that of Hong Kong students, the respective scale scores being 2.28 and 2.53 as shown in Table 4. There was a statistically significant difference between the group on these scores (t=8.00, p<.01) and the effect size was moderate (d=.51). There are statistically significant differences between students on all items but the effect sizes are small in each case. For both groups of students, however, the endorsement of this item is moderate rather than strongly positive suggesting that internal political efficacy at age 14 is still a developing process for these students.
### Table 4

Comparison of Hong Kong and Thai Students’ Sense of Internal Political Efficacy

<table>
<thead>
<tr>
<th>ICCS Key</th>
<th>Scale</th>
<th>HK (n=500)</th>
<th>Thailand (n=500)</th>
<th>Mean Difference</th>
<th>Standard error of difference</th>
<th>t</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q23: INPOLE F</td>
<td>Students sense of internal political efficacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IS2P23A</td>
<td>I know more about politics than most people my age</td>
<td>2.70 0.7 48 1 0</td>
<td>2.46 0.6 50 9 0</td>
<td>0.24 0.04</td>
<td>5.34*</td>
<td>0.341</td>
<td></td>
</tr>
<tr>
<td>IS2P23B</td>
<td>When political issues or problems are being discussed, I usually have some</td>
<td>2.64 0.7 48 6 0</td>
<td>2.34 0.6 49 5 9</td>
<td>0.29 0.05</td>
<td>6.54*</td>
<td>0.418</td>
<td></td>
</tr>
<tr>
<td>IS2P23C</td>
<td>I am able to understand most political issues easily</td>
<td>2.46 0.7 48 6 0</td>
<td>2.34 0.6 49 5 9</td>
<td>0.13 0.05</td>
<td>2.69*</td>
<td>0.172</td>
<td></td>
</tr>
<tr>
<td>IS2P23D</td>
<td>I have political opinions worth listening to</td>
<td>2.49 0.7 48 3 0</td>
<td>2.24 0.6 49 4 7</td>
<td>0.25 0.04</td>
<td>5.64*</td>
<td>0.362</td>
<td></td>
</tr>
<tr>
<td>IS2P23E</td>
<td>As an adult I will be able to take part in politics</td>
<td>2.45 0.7 48 7 0</td>
<td>2.12 0.6 49 8 8</td>
<td>0.33 0.05</td>
<td>7.10*</td>
<td>0.455</td>
<td></td>
</tr>
<tr>
<td>IS2P23F</td>
<td>I have a good understanding of the political issues facing this country</td>
<td>2.47 0.7 48 2 0</td>
<td>2.17 0.6 49 8 8</td>
<td>0.30 0.04</td>
<td>6.62*</td>
<td>0.424</td>
<td></td>
</tr>
<tr>
<td>Scale scores</td>
<td></td>
<td>2.53 0.5 48 5 0</td>
<td>2.28 0.4 49 3 6</td>
<td>0.26 0.03</td>
<td>8.00*</td>
<td>0.513</td>
<td></td>
</tr>
</tbody>
</table>

**p<.01**

The same pattern of endorsement can be seen in Students’ Citizenship Self Efficacy as shown in Table 5.

Thai students endorsed all items more positively for a scale score of 2.12 while Hong Kong students were somewhat less positive with a score of 2.34. This was a statistically significant difference between the scores of the two groups (t=6.52, p<.01) but the effect size was small (d=.42). There are statistically significant differences on five items but only on one item – concerned with ‘organizing students to achieve change at school’ - was the effect size moderate (d=.71). On all other items the effect size is small. The overall level of endorsement by both groups was moderately positive suggesting that their citizenship self efficacy was at a relatively early developmental stage.
Table 5

<table>
<thead>
<tr>
<th>ICCS Key</th>
<th>Scale</th>
<th>HK (n=500)</th>
<th>Thailand (n=500)</th>
<th>Mean Difference</th>
<th>Standard error of difference</th>
<th>t</th>
<th>Cohen's d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q30: Students' citizenship self-efficacy</td>
<td>CITEFF</td>
<td>IS2P30A Discus a newspaper article about a conflict between countries</td>
<td>2.27</td>
<td>0.7</td>
<td>47</td>
<td>2.05</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IS2P30B Argue your point of view about a controversial political or social issue</td>
<td>2.29</td>
<td>0.7</td>
<td>47</td>
<td>2.32</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IS2P30C Stand as a candidate in a &lt;school election&gt; Organise a group of students in order to achieve changes at school</td>
<td>2.41</td>
<td>0.8</td>
<td>47</td>
<td>2.03</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IS2P30D Follow a television debate about a controversial issue</td>
<td>2.42</td>
<td>0.8</td>
<td>47</td>
<td>1.88</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IS2P30E Write a letter to a newspaper giving your view on a current issue</td>
<td>2.25</td>
<td>0.7</td>
<td>47</td>
<td>2.16</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IS2P30F Speak in front of your class about a social or political issue</td>
<td>2.41</td>
<td>0.8</td>
<td>47</td>
<td>2.21</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IS2P30G Scale scores</td>
<td>2.34</td>
<td>0.5</td>
<td>47</td>
<td>2.12</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Comparison of Hong Kong and Thai Students’ Citizenship Self-Efficacy

As shown in Table 6, Thai ‘Students Attitudes towards the Influence of Religion on Society’ are more positive than those of Hong Kong students with respective scale scores of 1.82 and 2.86. There are statistically significant differences between the scale scores achieved by each group (t=26.44, p<.01) and the effect size is large (d=1.71). This suggests that the differences are very real and mark a distinctive characteristic of these two groups of students - more so than any or the others scales that have been examined.
### Table 6

**Comparison of Hong Kong and Thai Students’ Attitudes Towards the Influence of Religion on Society**

<table>
<thead>
<tr>
<th>Q36: RELIN</th>
<th>Students' attitudes towards the influence of religion on society</th>
<th>HK (n=500)</th>
<th>Thailand (n=500)</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
<th>Mean Difference</th>
<th>Standard error of difference</th>
<th>t</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS2P36A</td>
<td>Religion is more important to me than what is happening in national politics</td>
<td>2.96</td>
<td>0.7</td>
<td>47</td>
<td>6</td>
<td>7</td>
<td>1.69</td>
<td>0.6</td>
<td>49</td>
<td>1.27</td>
<td>0.05</td>
<td>27.80*</td>
<td>1.789</td>
</tr>
<tr>
<td>IS2P36B</td>
<td>Religion helps me to decide what is right and what is wrong</td>
<td>2.64</td>
<td>0.8</td>
<td>47</td>
<td>8</td>
<td>7</td>
<td>1.58</td>
<td>0.5</td>
<td>49</td>
<td>1.06</td>
<td>0.05</td>
<td>21.98*</td>
<td>1.417</td>
</tr>
<tr>
<td>IS2P36C</td>
<td>Religious leaders should have more power in society</td>
<td>3.01</td>
<td>0.7</td>
<td>47</td>
<td>5</td>
<td>7</td>
<td>2.09</td>
<td>0.7</td>
<td>48</td>
<td>0.92</td>
<td>0.05</td>
<td>19.36*</td>
<td>1.246</td>
</tr>
<tr>
<td>IS2P36D</td>
<td>Religion should influence people’s behaviour towards others</td>
<td>2.58</td>
<td>0.9</td>
<td>47</td>
<td>0</td>
<td>6</td>
<td>1.89</td>
<td>0.6</td>
<td>49</td>
<td>0.68</td>
<td>0.05</td>
<td>13.38*</td>
<td>0.862</td>
</tr>
<tr>
<td>IS2P36E</td>
<td>Rules of life based on religion are more important than civil laws</td>
<td>2.92</td>
<td>0.8</td>
<td>47</td>
<td>0</td>
<td>6</td>
<td>2.06</td>
<td>0.7</td>
<td>48</td>
<td>0.85</td>
<td>0.05</td>
<td>17.35*</td>
<td>1.118</td>
</tr>
<tr>
<td><strong>Scale scores</strong></td>
<td></td>
<td>2.82</td>
<td>0.6</td>
<td>47</td>
<td>6</td>
<td>5</td>
<td>1.86</td>
<td>0.4</td>
<td>48</td>
<td>0.96</td>
<td>0.04</td>
<td>26.44*</td>
<td>1.711</td>
</tr>
</tbody>
</table>

**Multivariate analyses**

Tables 7 and 8 show the results of ordinary least squares regression analyses using the ICCS civic knowledge scores (NWLCIV) as the dependent variable. Independent variables were entered in three blocks. ‘Parental occupation’ and ‘gender’ were entered in Block 1. ‘Internal political efficacy’ and ‘citizenship self efficacy’ were added in Block 2. ‘Religious influence on society’, ‘democratic values’, ‘interest in political and social issues’ and ‘value in participation in school’ were added in Block 3.

The results for Thai students are shown in Table 7. Demographic variables – parental occupation and gender – both exerted a positive and significant effect on civic knowledge (beta= .30 and .26 respectively, p>.001) accounting for almost 16% of the variance in students’ knowledge scores. When the two efficacy variables are added, R²
increased to 20%. But these variables were negatively related to civic knowledge (beta=-.12 for ‘internal political efficacy’ and -.11 for ‘citizenship efficacy’, p>.001) indicating that the higher students scored on these two scales, the lower their civic knowledge scores. When the additional variables were added, R^2 increased to 33%. The two efficacy variables remained negative in this block and ‘Religious influence on society’ was also negative (beta=-.14, p<.01). The remainder of the variables exerted a positive and significant influence on civic knowledge.

Table 7
Multivariate analysis of Thai students’ civic knowledge scores with demographic, self efficacy and citizenship scales

<table>
<thead>
<tr>
<th>Block 1</th>
<th>b</th>
<th>SE b</th>
<th>Beta</th>
<th>R Square</th>
<th>R Square Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>141.073</td>
<td>1.211</td>
<td></td>
<td>0.159</td>
<td>/</td>
</tr>
<tr>
<td>HISEI</td>
<td>0.200</td>
<td>0.028</td>
<td>0.302***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>5.206</td>
<td>0.842</td>
<td>0.263***</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Block 2</th>
<th>b</th>
<th>SE b</th>
<th>Beta</th>
<th>R Square</th>
<th>R Square Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>161.609</td>
<td>4.434</td>
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<td>0.199</td>
<td>0.040</td>
</tr>
<tr>
<td>HISEI</td>
<td>0.176</td>
<td>0.028</td>
<td>0.266***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>4.273</td>
<td>0.848</td>
<td>0.216***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INPOLEF</td>
<td>-0.196</td>
<td>0.075</td>
<td>-0.127**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITEFF</td>
<td>-0.159</td>
<td>0.066</td>
<td>-0.116*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Block 3</th>
<th>b</th>
<th>SE b</th>
<th>Beta</th>
<th>R Square</th>
<th>R Square Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>156.379</td>
<td>5.372</td>
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<td>0.326</td>
<td>0.127</td>
</tr>
<tr>
<td>HISEI</td>
<td>0.153</td>
<td>0.026</td>
<td>0.231***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>3.153</td>
<td>0.794</td>
<td>0.159***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INPOLEF</td>
<td>-0.251</td>
<td>0.074</td>
<td>-0.163**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITEFF</td>
<td>-0.217</td>
<td>0.063</td>
<td>-0.158**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RELINF</td>
<td>-0.252</td>
<td>0.072</td>
<td>-0.142**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VALPARTS</td>
<td>0.202</td>
<td>0.053</td>
<td>0.166***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEMVAL</td>
<td>0.293</td>
<td>0.050</td>
<td>0.252***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTPOLS</td>
<td>0.064</td>
<td>0.068</td>
<td>0.042</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. R^2 = .16 for Block1. ΔR^2=.04 for Block 2. ΔR^2=.13. *p<.05, **p<.01, ***p<.001

For Hong Kong students, the demographic variables were positive but not significant influences on civic knowledge (betas=.09 and .01 respectively) accounting for just .01% of the variance. With the efficacy variables added, R^2 increased to .03%. ‘Internal political efficacy’ was positively and significantly related to civic knowledge (beta =.16, p<.01) but ‘citizenship efficacy’ was negatively related (beta=.05) although it was not significant. With the additional variables added in Block 3, R^2 increased to 14%. ‘Citizenship efficacy’ remained negative (beta=-.06, p>) and non-significant.
‘Religious influence on society’ was also negative but significant (beta=-.18, p>.001).
‘Democratic values’ was positive but not significant (beta=.09).

‘Interest in political and social issues’ and ‘value in participation in school’ both exerted a positive and significant effect on civic knowledge (.22 and .16, p>.001 and .01 respectively).

**Table 8**

Multivariate Analysis of Hong Kong Students’ Civic Knowledge Scores with Demographic, Self-Efficacy and Citizenship Scales

<table>
<thead>
<tr>
<th>Block 1</th>
<th>b</th>
<th>SE</th>
<th>Beta</th>
<th>R Square</th>
<th>R Square Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>148.402</td>
<td>1.517</td>
<td></td>
<td>0.007</td>
<td></td>
</tr>
<tr>
<td>HISEI</td>
<td>0.051</td>
<td>0.029</td>
<td>0.085</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.208</td>
<td>0.926</td>
<td>0.011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>b</td>
<td>SE</td>
<td>Beta</td>
<td>R Square</td>
<td>R Square Change</td>
</tr>
<tr>
<td>Constant</td>
<td>141.763</td>
<td>3.347</td>
<td></td>
<td>0.027</td>
<td>0.020</td>
</tr>
<tr>
<td>HISEI</td>
<td>0.048</td>
<td>0.029</td>
<td>0.081</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.476</td>
<td>0.925</td>
<td>0.025</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INPOLEF</td>
<td>0.183</td>
<td>0.064</td>
<td>0.160**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITEFF</td>
<td>-0.053</td>
<td>0.059</td>
<td>-0.051</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 3</td>
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<td>Beta</td>
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<td>R Square Change</td>
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<tr>
<td>INTPOLIS</td>
<td>0.232</td>
<td>0.060</td>
<td>0.219***</td>
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</table>

Note. \( R^2 = .01 \) for Block1. \( \Delta R^2 = .02 \) for Block 2. \( \Delta R^2 = .12 \). *p < .05, ** p < .01, ***p < .001

**Discussion**

This study has sought to understand better Hong Kong and Thai students’ attitudes to selected citizenship issues and the relationship of these issues to students’ civic knowledge. It has drawn on data from the ICCS in which both Thai and Hong Kong students participated.

The demographic variables that were used in the study, ‘parental occupation’ and ‘gender, had differential effects on the two groups. For Thai students they accounted for
16% of the variance in civic knowledge scores but for Hong Kong students their effect was negligible and non significant. The results for Thai students were more consistent with the overall country results for the ICCS than the Hong Kong results. Hong Kong students stand out as those least influenced in their civic knowledge scores by demographic variables. While there is a wide socioeconomic gap within Hong Kong’s population, this may not translate into differential influences on students. This may mean that family influences and values in relation to learning are more similar in Hong Kong, irrespective of the gender and social well being of the students. This remains an important issue to explore further.

The self-efficacy variables were positive in only one instance – Hong Kong ‘Students sense of internal political efficacy’ directly influenced civic knowledge so that, all other variables held constant, a one standard deviation increase in this variable accounted for 16% of a standard deviation increase in civic knowledge. For Thai students the same variable exerted a negative and significant effect on civic knowledge. These results cannot be explained by the degree of efficacy felt by students - Thai students had a greater sense of internal political efficacy than Hong Kong students but this did not translate into improved scores on civic knowledge. These students with higher levels of internal political efficacy had lower civic knowledge scores – although it cannot be assumed that it was internal political efficacy that caused this. It is not clear why internal political efficacy operates differently for these two groups of students but it represents an important area for future research.

‘Students' citizenship self-efficacy’ was not a good predictor of civic knowledge for either Hong Kong or Thai students. For the latter it was negative and significant while for Hong Kong students, it was negative but non significant. Both groups of students were confident that they could effectively participate in politics, but this did not enhance their knowledge of civic institutions, values or actions. There has been little research on these political efficacy variables with young students and it may be that age is a key factor here. They may wish to participate in the ways suggested but this does not mean that they have any knowledge of civic institutions or even values concerning them. In this sense,
participation may well be an end itself and not based on any specific knowledge or understanding of the purposes of such participation.

Both Thai and Hong Kong students valued participation in school and this has a positive influence on their civic knowledge. With the other variables held constant, for every standard deviation change in ‘Students' perceptions of the value of participation at school’, civic knowledge will increase by approximately 16 – 17 % of a standard deviation for both groups. This suggests that the school environment itself is an important consideration in civic and citizenship education. It is not just classroom lessons that influence students’ civic learning in both Hong Kong and Thailand – it is also the quality of what students experience as part of their daily life in schools.

Students’ support for a participatory school culture was reflected in their support for democratic values, but the influence of these values on civic knowledge differed for Hong Kong and Thai students. For the latter, there is a direct impact. With other variables constant, for every standard deviation change in Thai ‘Students' support for democratic values’, there was a 25% of a standard deviation increase in civic knowledge. For Hong Kong students, however, the impact was negligible and non-significant. Even though Hong Kong students’ endorsement of democratic values was quite high (see Table 2) it seems such values are not related to civic knowledge. This raises the interesting question of the relationship between values and knowledge, which is also an issue in the results for ‘Students' attitudes towards the influence of religion on society’.

For both Hong Kong and Thai students, the relationship between their attitudes to religious influences on society and civic knowledge was negative and significant – the higher their score on this scale the lower their civic knowledge scores. But the effect was different for each group. Thai students scored high on the scale and their civic knowledge scores were low. Hong Kong students scored low on the scale and their civic knowledge scores are high. Thus for Hong Kong students, neither democratic values nor their attitudes to religious influences in society positively influenced their civic knowledge. For Thai students, on the other hand, while their attitudes to religious influences in society actually influenced their civic knowledge negatively, their support for secular values
influenced civic knowledge positively. This is an important area for future investigation to understand better why the relationship between civic values and civic knowledge differs across cultural groups and for different types of values.

‘Students’ interest in politics and social issues’ exerted a positive and significant effect on Hong Kong students’ civic knowledge but a negligible and non significant effect for Thai students. Yet the latter showed a statistically significant difference between the two groups on this scale with Thai students being generally more positive than Hong Kong students. Thus like a number of the other scales reported above, positive endorsement has differential effects for each group of students. It maybe that if interest in politics and social issues is all there is, it may not be enough to provide a solid knowledge base. This maybe the case for Thai students, but for Hong Kong students the situation is reverse. Their moderate support for interest in politics and social issues is maybe all that is needed so that their focus can be more knowledge based. Unlike Thai students, Hong Kong student may not be consumed with interest in these issues, but they do not need to be for their interest to affect their civic knowledge. This is a further area for additional study.

This study has shown the importance of secondary analysis of ICCS data. The results reported here are more subtle and more revealing of students’ citizenship attitudes in two different societies than the international analyses. Yet much remains to be explained. The models proposed here seem to be more explanatory of the results for Thai students than Hong Kong students so that additional explanations need to be found for Hong Kong students’ achievements. Yet a similar point can be made for Thai students’ achievement as well. At best, this study has been only able to account for about 32% of the variance in student achievement. This study, therefore, is only the beginning of seeking a fuller explanation of students’ civic learning in different societies.

Perhaps the key issue to emerge in this study has been the relationship between civic values and civic knowledge. It seems that Thai students scored very well on civic values, but this did not translate into high a score on civic knowledge. In general, Hong Kong students scored somewhat lower on most civic values than Thai students, yet their
civic knowledge scores were higher. Yet in relation to “Democratic values”, the one area where Hong Kong students civic values were stronger than those of Thai students, these had little or no impact of Hong Kong students’ civic learning. Intuitively, it would seem that strong civic values should be supported by an equally strong based of civic knowledge. This study has suggested that this is not always the case. A key area for future research, therefore, is to explore the link more thoroughly to reach a better understanding of the relationship between civic knowledge and civic values.

Conclusion

It should not be surprising that students who experience different education systems, cultural values, social priorities and political systems have different attitudes to citizenship issues. These contextual factors are likely to influence individual students in multiple ways and they need to be taken into account when seeking to understand how students in different contexts respond to citizenship issues. Secondary analysis of ICCS data in this study has identified a number of future areas for research. One direction will be to continue to explore the data to identify those variables that have a direct impact on students’ civic learning. In addition, qualitative studies can also be undertaken to delve more deeply into issues that emerged in order to understand better why students respond one way in one context and a different way in another context. These multiple research methods pursuing key research issues have the potential to expand our understanding of civic learning and its construction in different social, political and cultural contexts. This is a challenging agenda for research that hopefully will be realized in the years to come.
References


Understanding reading and writing difficulties in Chinese language: from research to intervention

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ABSTRACT

Around 3 to 10 percent of the school population in a country has reading and writing difficulties that appears to be the most prevalent difficulty of students with special educational needs in many mainstream classes. Their education is therefore of great concern to the community. Research on reading and writing difficulties in Hong Kong is briefly reviewed with emphasis on the cognitive characteristics and its manifestations. Understanding the profiles of students may help to provide a solid foundation for both intervention and further research. Recent progress on the development of assessment and intervention framework for early identification and intervention is presented. The need for translating research into evidence-based practice in developing literacy curricula and intervention programs is also discussed.

Keywords: Reading and writing difficulties, Intervention, Assessment
Teacher readiness for Chinese immigrant students with learning disabilities in Hong Kong: Implications from A case study

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ABSTRACT

The increasing number of Mainland Chinese immigrant children in the Hong Kong school system mandates our understanding of teacher readiness to work effectively with these students. This case study adopted narrative inquiry to probe deep into participants' lived experiences to reveal significant insight into teacher readiness in working with Chinese immigrant students with disabilities. Data sources included field notes, unstructured- and semi-structured interviews, and classroom observations. Findings showed that the special education teacher was primarily concerned about the student participant’s difficulty associated with his disabilities, totally unaware of the impact of her limited proficiency in the child’s first language. The government’s concept of acculturation needs and subsequent policy contributed greatly to school personnel’s lack of awareness of student needs and lack of readiness to work effectively. Recommendations focused on government policies for qualification requirements of special education teachers and reforms to integrate special and multicultural teacher education.

Keywords: Chinese immigrant children, learning disabilities, Multicultural education
The Development of Supporting System of Lifelong Learning in Accordance with the Local Style in the Northeast Region

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ABSTRACT

This study is an applied research in Social Science, aimed to investigate, evaluate and develop the supporting system of lifelong learning. Population and samples were living in the northeast region. Interviewing questionnaires were employed to collect data and the focus group interviews were conducted to formulate the results.

The results of this study provide important information dealing the supporting system of lifelong learning constructed in relevance to 3 aspects of development process: partnership, participation, and performance assessment. Firstly, in partnership aspect, research showed high level of practice of the citizen body in project operation and assessment of income, which need to be assessed continuously. Secondly, in participation aspect, research revealed high level in- participation in attending the meeting and in establishing community’s goal prior to operation, participation in continuously making action plan resulting from successful experiences, which need to be developed further in the creation of the system that encourage co-operation within the community with awareness of participation in the meeting as stakeholder. Thirdly, in performance assessment and learning cycle, it suggested that there was an adherence of the target of lifelong learning to the development of community economy. Research also indicated that publication of community projects needed to be developed.

Keywords: lifelong learning, the development of supporting system of lifelong learning

Results

Analysis of cooperation in term of partnered learning cycle in part of body of people showed related issues as follows: issues showing high level of practice were, first, the evaluation of project by means of estimating the income of people in the group, second, planning of projects dealing sufficiently living and assessment of quality of life in the community, third, the evaluation of cooperation of both internal and external groups estimated by wage, and fourth, assistance by affiliated organization, especially sub-district administrative one to which budget and resources were provided. As for the issue showing low level of practice was continuous assessment in term of individual following up where as change of members within groups showed rather little.

Analysis of people participation in learning aspect- system management in part of body of people revealed related issues as follows: issues showing high level of practice were, first, consultation and goal setting up for community- the main goal prior to project operation was sufficiency of income and strength of the community, second, understanding of practitioner’s activities relating to the community- groups taking part in consultation were men, women, the young, the elderly, old local resident and new.
migrants respectively, third, community meeting for the purpose of discussion – more than 70 % of the meeting were organized for some time- a successful way of the discussion was the one people cooperated and united, where as an un successful one was the one people were not cooperated and ignored. As for the issues showing low level of practice were, first, an establishment of the system aiming to encourage the meeting in the community, second, community members’ fund raising, third, entrusting the members with responsibility as stakeholders of the meeting and, fourth, providing unexpected issues, especially the one dealing purchasing contributed to change of the plan.

Apart from system management, analysis of operational idea in part of body of people revealed related issues as follows: issues showing high level of practice were, first continuously planning employing prior success experiences. As for the issues showing low level of practice were, first, recording of key indicators- financial accounts, second, initiatives deriving from discussion or planning as the way of operation, third, receiving and distributing information dealing creative activities, and fourth, conducting research or applying techniques serving learning culture.

As in learning cycle and assessment of resource inputting into system, analyses of added values in part of body of people revealed related issues as follows: issues showing high level of practice were, first, combining the target of life-long learning with the development of community economy, second, information distributing corresponding to community’s needs, third, coordinating cooperation among organizations in the community. The project developed by the group was rubber plantation fund. Facilities serving the training were the community hall. As for the issues showing low level of practice were, first, learning indicators of economy development plan, especially community’s income, second, assessments of output/ income, and third, projects distribution in public.

Suggestions and developments

The development of supporting system of life-long learning:
1. Cooperation in term of partnered learning cycle in part of body of people, research suggested that the following issues: continuous assessment in term of individual following up and change of members within groups should be developed.
2. In people participation in learning aspect- system management in part of body of people revealed that the following issues, such as establishment of the system aiming to encourage the meeting in the community and providing unexpected issues, especially the one dealing purchasing contributed to change of the plan should be developed.
3. In having people participate in learning- operational idea in part of body of people indicated that the followings: recording of key indicators- financial accounts, initiatives deriving from discussion or planning as the way of operation, receiving and distributing information dealing creative activities, and conducting research or applying techniques serving learning culture should be developed.
4. In learning cycle and assessment of resource inputting into system- analyses of added values in part of body of people confirmed that following issues: learning indicators of economy development plan, especially community’s income, assessments of output/ income, and projects distribution in public should be developed.
The Development of Learning Study in Hong Kong

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ABSTRACT

The Learning Study approach has been developed over ten years by a research team comprising school teachers and academics in Hong Kong. It is a systematic process of enquiry into teaching and learning, employing an action research methodology, and underpinned by the Variation Theory. Under Learning Study, teachers are expected to learn cooperatively and become reflective practitioners by practicing the theories postulated from others. Learning Study can be used to enhance teachers’ pedagogical capabilities and professional development.

This paper describes how Learning Study, which initially started as a modest project to find ways to cater for individual differences in mainstream schools in Hong Kong, became a powerful tool for schools in achieving these aims. Working in close collaboration with the Hong Kong Institute of Education, Learning Study developed as a major component of a mentoring system, which resulted in the creation of learning communities in schools, where the focus is on enhancing teaching and learning. Such a system benefits all teachers involved, whether novice or very experienced. Starting with only two schools in 1999, schools in the Learning Study network rapidly expanded to over 200 schools in 2010. The success of Learning Study in Hong Kong will be analyzed under the following factors: its conceptual framework, methodology, partnership with higher education institutions, positioning, reform context and culture, and dissemination strategy and the diffusion process in and across schools. Its potential for moving towards improving the status of the profession as a whole will also be discussed.

Keywords: Learning Study, teacher professional development, learning community
The Development of an Internal Quality Assurance Model for Municipality Schools by the Knowledge Management Process

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ABSTRACT

This study is generally a Research and Development Project - precisely it is a Pragmatic Action Research Project - to develop an internal quality assurance model for municipality schools by the knowledge management process. It is aimed to integrate the Key Performance Indicators Management (KPI) with the Plan, Do, Check, and Act process and the Knowledge Management (KM) Process. Conducting this research is challenged. Research results would provide effective method to implement internal quality assurance for municipality schools. Final product of this research will be a model of an internal quality assurance for municipality school by the knowledge management process as only a pilot project. After the researcher finished the research, the municipality schools should gradually continue to improve the existing project or expand the existing project by themselves. Above all, municipality schools will be able to provide a variety of activities to cover requirements of the national standard to develop students, teachers, and principals to their highest potential by the model.

The research, now, is in the beginning process of development. A pilot database is accomplished according to the framework. Merging and storing the requirements in the database is about 60% finished. Knowledge vision instillation, setting organization structure, mobilization of knowledge activist, etc. is in progress mobilize. First draft model will be accomplished within October 2010.

Keywords: Internal Quality Assurance System, Knowledge Management, Municipality Schools

Background

Recently, Thai schools have their own autonomy in management. Schools are different very much in their contexts. Therefore, the National Education Act, B.E. 2542 (1999), (Amendment B.E. 2545 (2002)) provides authority to any head office of schools to conduct an internal quality assurance system before receiving an audit form an external quality assurance system. Consequently, an establishment of both Basic Education Standards and Kindergarten Standards has been developed by each various authorities such as the Office of Basic Education Committee (OBEC), Department of Local Administration (DLA), or etc. In this legislation, requirements are refer to good characteristics that are needed to be developed within every school. The requirements would be used to compare for promoting, supervising, examining, assessing the quality of education. Establishment of standard has 2 important roles: 1) Every school is provided Key Performance Indicators (KPI) to be compared in the same manner when performing its own management. 2) Schools would be perceived a right direction to perform its own management. If the KPI does not exist, accountability to public would not be achieved.
Therefore, schools should implement according to existing requirements under standards to improve their students, teachers, and managements before receiving an external education assessment by the Office of National Education Standard and Assessment (ONESQA). (Basic Education Committee. B.E. 2551 (2008) : 1-2 ; Local Administration. B.E. 2548 (2005) : 25-30)

Second Round External Education Assessment B.E. 2549-2553 (2006-2010) by ONESQA includes 2 parts: first, an assessment according to absolute criteria, second, an assessment according to relative criteria or school base management: the Plan, Do, Check, and Act (PDCA). The first part is to consider actual output or outcome compared with the same of nation criteria. The second part is to consider performance of the schools system. If the second part is good, education quality would be gradually improved by its own management or school base management. However, recent summary of external evaluation reveals that schools have not yet clearly implemented their policy, strategy, plan, project, and activity. The PDCA is usually not efficient and effective. It is not synchronized with its nature and requirements under standards. Consequently, many schools could not achieve the standard established by ONESQA. Opportunity to improve students, teachers, and principal potential in education quality is lost. Only about 20 % of schools attained very good score of. (Matichon. 2552 : 23)

Second Round External Education Assessment Reports Usually external assessment reports by the ONESQA give general suggestions such as “School should improve more critical thinking of students;” and lack suggestions to improve the Plan, Do, Check, and Act process to improve “School-Based Projects” (National Education Standard Quality and Assessment. B.E. 2552 (2009)). Finally, there is lack of continually collective learning within an organization.

Generally external assessment auditors of the ONESQA act like mediators to transfer knowledge from school to school but work too slowly as each auditor can audit only a few schools in a year. Finally, many policies are handed down from high level organizations responded to the KM theories. However, there is some gap. Application of the theories by low level organizations or schools does not effective yet. In addition, internal assurance system of PDCA according to KPI is still implemented in inefficient way. Therefore, this research aims to develop internal quality assurance system to be effective and efficient.

Objective of Research

To develop an internal quality assurance model for municipality schools by the knowledge management process

Scope of Research

Research area: population and sample are as follows.
1. Scope of the Area: 7 Municipality schools in Muang Roi-Et Municipality, Roi-Et Province.
2. Scope of the Information Rich Case Area: Chumchon Ban Nong Ya Ma School which is one of 7 Municipality schools in Muang Roi-Et Municipality

3. Population: There are 3 main categories of population comprise of 1) Schools 2) Director of schools 3) Teachers

4. Sample: 1) One school is selected from 7 municipality schools 2) 3 principals are selected from 7 municipality schools 3) 34 teachers are selected from 214 teachers in 7 municipality schools (All are in the Information Rich Case Area)

Population and Sample are shown in table 1.

Table 1  Summary of Population and Sample

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<th>Categories of Population</th>
<th>Total</th>
<th>Sample</th>
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<td>1</td>
</tr>
<tr>
<td>Director of schools</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Teachers</td>
<td>214</td>
<td>34</td>
</tr>
</tbody>
</table>

Conceptual frame work

The Internal Quality Assurance Model developed in this research is a Practical Model. Development could be classified into 2 levels: school level and municipality level. The development in detail of this research is mostly classified into the school level form data generation within the school of an information rich case. Then the model could be further developed a few more detail into the municipality level later.
Above all, the model development is aimed at a provision of a variety of activities to cover requirements of the national standard to develop students at their highest potential. Therefore, the first focus framework is the PDCA process of municipality school: P1, P2, P3, D1, C1, C2, C3, and A1.

First step of model developing is to define school own identity standards/indicators/requirements. Requirements within indicators/standards are made by combination of OBEC (as competitor) and ONESQA (as external assessment unit). The requirements of the two organizations are better between each others in some aspects. The combination is improved requirements of municipality schools in better way.

Next frame of management theory or model which is applied parallel with the PDCA process is the knowledge management system of 4 main processes includes: PC1, PC2, PC3 and PC4.

Enablers which are lined across to make the 4 main steps effective include: E1, E2, E3, E4 and E5.

Beside, database technology -which is defined as a support instrument or factor-, is the additional framework to make E1-E5 and PC1-PC4 efficiently.

The model involves managing interaction between the PDCA system and the KM system in an effective way. The more we can manage the KM system in an effective way, the more we can make the PDCA system better. The more we can manage the PDCA system in an effective way, the more we can make the KM system better.

In the information rich case school’s aspect, this research is classified as the “Pilot project of the Development of an Internal Quality Assurance Model for Municipality Schools by the Knowledge Management Process”

**Methodology**

**Research Methodology**

This research is conducted by using a pragmatic action research. The researcher acts as an intervener of the research process. School directors, teachers, and students involved as the selected samples are co-researchers. Researcher and co-researchers are equal.

**Data Collection**

**First Phase: to Develop the Pilot Database and Draft IQA Model by KM**

Researcher brings pilot database result into conversation with co-researchers periodically along with finding empirical data within the research area. Then, we -all researcher and co-researchers- collectively draft an IQA model by KM.

**Second Phase: to Verify the Draft IQA Model by KM by Experts**
Researcher proposes the first draft IQM Model by KM to group of experts to improve for further research implementation.

**Third Phase: to Test and Evaluate the Final Draft IQA Model by KM**

Researcher involves in the following 4 activities.
1) Conducting a conference for making collective understanding among researcher and co-researchers.
2) Testing the final draft IQA model by KM 1st round and collecting critical information to improve the developed model 1st round.
3) Testing the final draft IQA model by KM 2nd round and collecting critical information to improve the developed model 2nd round.
4) Evaluating utility, feasibility, propriety, and accuracy of the model and analyzing critical information to finalize the developed model.

**Data Analyze and Evaluation**

Tools used in the first phase are the open end questionnaires and the database developed by researcher as a pilot one to guide the co-researchers. Content analysis is applied to this phase.

Tool used in the second phase are Connoisseurship methodology. There are 7 experts in areas of external quality assessment, internal quality assurance, knowledge management, database management, and education management. Each expert may cover in various areas. 10 of co-researchers are selected to attend and involve in view exchange while conducting the Connoisseurship methodology. Content analysis is applied to this phase.

Tools of the third phase are short-term conference, action research process, and five rating scale questionnaire with open end answer for model evaluation. Content analysis is applied to action research process. Statistical and content analysis are applied to the model evaluation process.

**Results of Research**

According to 3 phases of methodology the first draft of an IQA model by KM would be accomplished within the first phase, the final draft of an IQA model by KM would be accomplished within the second phase, and the final model would be accomplished within the third phase. Now, there are some results generated only in the first phase because it is in the beginning of conducting the research.

Some results are:
The researcher finished developing a pilot database.

1) The Requirements of OBEC, ONESQA and DLA are being merged. This is one important element that has to be stored in the database. Merging and storing the requirements in the database is about 60% finished.
2) Knowledge Vision Instillation is in progress. It was found that Knowledge Vision is very difficult to generate according to the criteria of the theory. Even the
talkative principals or management levels still have a problem with this, researchers have to help management levels write the script by drawing on their tacit knowledge and codifying it before instillation.

3) Organization structure is almost accomplished. In this area, unexpectedly, I found that the organization structure of the Information Rich Case School complied with the theory of the Knowledge Management Process Theory and is non-hierarchical.

**Demonstration the Result of Research**

This is a pilot database (The Main Menu features) according to the research framework and its definition terms of “Data, Information, Knowledge, and Wisdom”, and according to the Plan, Do, Check, and Act Process within the legislation. This is using for guiding co-researchers to generate their further useful idea toward the development of a model. There are three groups in the Information Rich Case School Kindergarten (on the Left of picture), Primary and Secondary (on the Middle of picture), and Local Sport schools (on the Right of picture). Usually there are only two groups: Kindergarten School, and Primary and Secondary School within One.
Now, the input area five command button 1) “Input New Project” 2) “Input Project Detail” 3) “Comparing Activities with the requirements” 4) “Input Monitoring and controlling Activities” and 5) “Input Evaluation Activities”

In the output area, now, there are comprise of: 1) One command button for clicking to see existing standards/indicators/requirements, and 2) One combo box with a command button for choosing to see frequency of requirements matched with existing Key Words of Activities

“Standards” Feature
After choosing Output of: Primary and Secondary Standards, the feature like this picture will appear. There are: 25 Standards 159 Indicators 615 Requirements. Local sport school and kindergarten school has the same 25 standards, but different in number of indicators and requirements.

Within the “Input New Project” Feature, different people should be responsible for conducting; monitoring and controlling; and evaluating the project. It should be input after giving project names and their codes. Because of different idea could help generate new knowledge in the followed process.

Within the “Input Project details” Feature, the key words of activities and their codes should be input.
Here is a critical one of the database features. The “Input Monitoring and Controlling Activities” Feature, teachers can select existing projects, then, select key words of activities within projects, after that, finding and checking requirements matched with the key word of Activities. The database or program remembers this.

Here is another critical one of the database feature. Teacher can find information of frequency within standards. If they find that there is not any or few activities related to certain requirements, they have to find out activities to fulfill or add into the requirements.

Now, I could say that this is one of a start point of the simple knowledge management process of professor Nonaka, the simple process of Acquire, Create, Accumulate, and Exploit. Systematically, teacher will start to acquire their own tacit knowledge from this point.
For the “Input Monitoring and Controlling Activities” Feature, after selecting the key word of activities, teachers can simply do a few clicks to import pictures of activities and then input their explanations.

For the “Input Evaluation Activities” feature, after selecting the key word of activities, teachers can simply click to select a score in an option group area and then input their suggestion and interpretation.

Summary of Research

The research is not finished yet.

Suggestion to Bring Result into Implementation

Please be notice that all I have explained and demonstrated is only in the first phase of the draft model. However, let take a look at some suggestion.

This research is only a pilot project. With regard to the database, there are some features that teachers want and could be developed in addition in the future.

Database developed under this research is only considered as early design. Just like development of any effective and efficient software. Therefore, trial and error is an important issue to enhance the development in the future. Effective software industries do just that (Cusumsno and Selby. 1995 citing Nonaka and Takeuchi. 1995 : 232).

Because the expected outcome of this research is the provision of a variety of activities to cover requirements of the national standard to develop students, teachers, and principals to their highest potential by the model, performance should synchronize with the actual plan. If teachers only copied information from the database of other schools, the system would fail.
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A Study of English Reading Comprehension and Interest of Prathom Sueksa V Students at Ban Huay Chuek School Amphur Kranuan, Khon Kaen Province Using Genre-Based Approach (Narrative Genre Features)

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ABSTRACT

The purposes of this study were to study English reading comprehension and interest of Prathom Sueksa V students at Ban Huay Chuek School using Genre-Based Approach (Narrative Genre Features).

The samples used in this study were all of 26 Prathom Sueksa V students at Ban Huay Chuek School, Amphur Kranuan, Khon Kaen. They were selected by purposive samplings into the experimental group since there was only one class of Prathom Sueksa V.

The instruments used were lesson plans on Genre-Based Approach (Narrative Genre Features), English reading comprehension test, and interest questionnaires of the students towards English reading comprehension. The data were statistically analyzed by using arithmetic mean, standard deviation and Z-test.

The results of the study indicated that:
1. English reading comprehension of Prathom Sueksa V students using the Genre-Based Approach (Narrative Genre Features) after the experiment was significantly higher than before the experiment at the .01 level.
2. Interest towards English reading comprehension of Prathom Sueksa V students using the Genre-Based Approach (Narrative Genre Features) after the experiment was significantly higher than before the experiment at the .01 level.

Keywords: English reading comprehension, Interest towards English reading comprehension, Genre-Based Approach (Narrative Genre Features)
Daily life science learning with experimental kits

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ABSTRACT

This work aims to develop low-cost testing kits for learning on science with secondary schools students. The kits, pH, phosphate and CO₂, are based on colorimetric and turbidimetric analyses. An experimental kit was designed to support students exploring issues associated with soft drink and composed of instructional manuals, lesson plans, assessment items and the kits. Inquiry-based learning and has been promoted in the experimental kit and encouraged students to collect their own data and explore their results in practical work and also team teaching was introduced and managed in the classroom. By doing experiment, students learnt by themselves about the concept of solution, gas and their properties. In addition, students had an experience that their favourite soft drinks contain only sugar and food additives some of which might not be beneficial to their health. The developed experimental kit would help students for learning science through everyday life drinks and raising awareness of health.

Keywords: Experimental kit, Soft drink, Inquiry
Changes in beginning teachers’ teaching motivation – the impact of school-based factors

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**ABSTRACT**

The current education reform has created challenges to teachers and it even washed out the aspiration of young people in joining this profession. Study on teacher’s motivation has to be renewed at this time and the study of teacher’s motivation over time can tap understanding into the career profile of teachers to examine factors for a successful career while sustaining or cultivating a preferred orientation to teach. Using a longitudinal design, changes in beginning teachers’ teaching motivation are explored in the present study. Beginning teachers were interviewed first when they graduated from teacher-training program in 2007 and then after they had been teaching for two years in 2009. The result is presented in a 4-fold typology in which teachers’ initial teaching motivations interact with school environment to produce different teaching outlook. School factors such as volume of non-educational workload, equitability in distribution of work and teachers’ professional autonomy are found to have important influence on teachers’ teaching motivation.

**Keywords:** beginning teachers, school administration, teaching motivation, teacher professional development, school-based factors
Learning from a ‘Learning Study’ action research: case analysis and reflections

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ABSTRACT

This paper presents the research findings of a government funded “Learning Study” project on an EFL reading lesson in a Hong Kong secondary school completed in 2009. Learning study is a type of ‘lesson study’ developed in Hong Kong since 2000. It is the professional development process that a group of English teachers engage in collaboratively to examine systematically their classroom teaching practice, with the goal of becoming more effective and reflective. The Learning Study follows a set of professional procedures including identifying a worthwhile topic, planning, teaching, observing, and critiquing the lessons under study. Inspired by action research, this English learning study drew a group of Grade 8 English teachers together to study one particular English reading lesson in a scientific and evidence-based manner. The paper examines the English teachers’ professional development and students’ learning outcomes through the entire project. The research indicates that ‘Learning Study’ provides a comprehensive platform for English teacher professional development and has a long term impact on students’ competence of learning to learn.

Keywords: Learning Study, teacher professional development, research lesson, reading Strategies
An Analysis of Four Thai Physics Teachers’ Classroom Talks: The Communicative Approach

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ABSTRACT

This paper reports on a study that examined the nature of classroom talks employed by four physics teachers in a southern province of Thailand. Naturalistic inquiry was used as the research methodology to collect data through extended observations in the real context of each teacher’s classroom. Mortimer and Scott’s (2003) communicative approach was used as a framework to analyze and identify dimensions of each teachers’ classroom talks. Results of the study indicated that all the teachers’ classroom talks can be characterized as an interchange between an interactive/authoritative and a non-interactive/authoritative approach. Only little evidence could represent a dialogic dimension of their classroom talks. Therefore, the study argues for paying more explicit attention to the teachers’ classroom talks in which dialogic interactions between them and their students should be promoted and added.

Key Words: Classroom Talk; Communicative Approach; Physics Teacher; Science Education in Thailand

Introduction

“At present it seems that much of what goes on in science lessons is dominated by thoughts of what activities the students might become involved in. … [T]he emphasis on practical activity has served to draw attention away from what we regard as being key feature of any science lesson. That is the way in which the teacher orchestrates the talk of the lesson, in interacting with students, to develop the scientific story being taught. Practical activities can be interesting, motivating and helpful in getting ideas across, but they cannot speak for themselves.” (p.1)

In their book, Meaning Making in Secondary Science Classrooms, Mortimer and Scott (2003) argued to the science education community in favor of paying more explicit attention to the nature of classroom talks in which the teacher interacts with students during science instruction. This argument, at least in the researcher’s point of view, seems to be particularly relevant in Thailand because there has been a nationwide push, according to the educational reform movement, to have science and other teachers implementing a variety of instructional activities with little explicit attention, if any, given to their way of talking in the classroom. With this “significant shortcoming” (Mortimer & Scott, 2003: 107), one may not be able to make a claim that any recommended instructional activities can be implemented effectively.

1 This study was undertaken as part of the researcher’s doctoral thesis funded by the Graduate School, Kasetsart University.
In a broader context of research in science education, the importance of classroom talks employed by the teacher for student learning has been well recognized. One of particular interest, in this research area, is to find and promote ways that the teacher can have *dialogic* interactions with students in order to influence their thinking and facilitate them to develop scientific understandings. For example, van Zee and Minstrell (1997a) suggested a pattern of classroom discussion in which the teacher provides the students opportunities to express their own ideas, engages with them in an extended series of questioning exchanges, and tries to understand their ways of thinking and reasoning. In so doing, the teacher has to use a range of language tools and techniques (Dawes, 2004; Rowe, 1986; van Zee & Minstrell, 1997b) that help maintain such a dialogic discussion so that shared meanings and understandings of what is being discussed among the teacher and the students can be developed.

Despite the fact that implementation of having dialogic interactions with the students has been suggested to the teacher, Mortimer and Scott (2003) argued that introducing the students to scientific ideas will inevitably involve some form of *authoritative* interventions. Such interventions could occur, for example, when the teacher accepts some student’s potential idea to be explored or discussed in more detail while ignoring some other ideas that are considered as less potential or even irrelevant. Thus, any productive classroom discussions must involve both authoritative and dialogic interactions (Scott *et al*., 2006). Following this argument, it becomes necessary that the teacher has to keep a balance, and overcome a tension, between the two forms of interactions—that is, to decide when and how to open up a dialogic discussion with the students or to direct them towards an intended scientific idea (Scott & Ametller, 2007). Only when the teacher can keep this kind of balance well, it is more likely that the teacher can facilitate the students to develop scientific understandings.

In response to little explicit attention paid to teachers’ classroom talks in Thailand, this study examines ways in which four Thai physics teachers talk, and interact, with students while they are teaching some physics’ content. The main purpose of the study is to identify the common ways of talking (e.g., dialogic or authoritative) used by those teachers, and make such ways more “visible” in literature and gain more explicit attention. Results of the study will also inform the participant teachers how their existing ways of talking might be extended to better promote student learning. In doing so, the theoretical base and the analytical framework used for examining the teachers’ ways of talking in the study are discussed in the following section.

**Theoretical Base and Analytical Framework**

**Theoretical Base**

This study is theoretically based on Vygotsky’s sociocultural perspective on learning (Scott, 1998), which gives attention to the process of how individual children make meanings of what they want, or are expected, to learn within a social and cultural context, as well as that of how the elder(s) can become involved in that kind of meaning making process in order to facilitate their learning. In such a context of learning, language is considered as a mediational tool that allows the children to compare and contrast their
personal meanings of what is being learned with those accepted and used as valid in the broader public context. It is this perspective that shares some fundamental notions of the constructivist perspective in that learning requires active intellectual involvement by the children and that their personal meanings (or prior knowledge) influence subsequent learning (Mortimer & Scott, 2003). Looking from the sociocultural perspective on learning, the teacher in the science classroom plays the central roles in the meaning making process of individual students as she/he intends to mediate scientific ideas to them. It is the teacher, for example, who elicits and clarifies personal meanings of the students, introduces them to scientific ideas, assists the students to make links, and distinguishes, between both, and supports them to apply such scientific ideas in various contexts (Mortimer & Scott, 2003). These roles indeed require social interactions between the teacher and the students. Perhaps, it could be said, only classroom interactions allow the teacher to do so. Based on this very fact is the reason why classroom talks of the teacher are necessary to be taken into account.

**Analytical Framework**

In this study, Mortimer and Scott’s (2003) analytical framework is used, as a tool, to examine the participant teachers’ classroom talks. Although the framework is based on five linked aspects of the teachers’ roles in making scientific ideas available to the students (i.e., teaching purpose, content of classroom talks, communicative approach, pattern of discourse, and teacher intervention), this study focuses on only the communicative approach as it “lies at the heart of the framework” (p. 27). It is this focused aspect of the framework that gives attention to “the ways in which the teacher works with the students to address the different ideas that emerge during the lesson” (p. 27).

In the framework, Mortimer and Scott (2003) described the communicative approach in two dimensions: dialogic—authoritative and interactive—non-interactive. The former dimension focuses on whether or not the teacher takes notice of students’ ideas—that is, the teacher who employs the dialogic approach takes into account a range of students’ ideas, while the teacher who uses the authoritative approach pays attention to only one particular (often scientific) idea. The latter dimension focuses on whether or not the teacher has interactions with students during science instruction. It means that the teacher who employs the interactive approach allows student participation while the teacher who used the non-interactive approach does not do so. As a result of combining these two dimensions, there are four classes of the communicative approach as shown in Figure 1.

<table>
<thead>
<tr>
<th>DIALOGIC</th>
<th>INTERACTIVE</th>
<th>NON-INTERACTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTHORITATIVE</td>
<td>A. Interactive/Dialogic</td>
<td>B. Non-interactive/Dialogic</td>
</tr>
<tr>
<td></td>
<td>C. Interactive/Authoritative</td>
<td>D. Non-interactive/authoritative</td>
</tr>
</tbody>
</table>

**Figure 1:** Four classes of the communicative approach (Mortimer & Scott, 2003: 35)
The four classes of the communicative approach can be exemplified as follows:

A. The interactive/dialogic approach: the teacher interacts with the students in order to consider and work on a range of perspectives.
B. The non-interactive/dialogic approach: the teacher presents or reviews a range of perspectives without interaction with the students.
C. The interactive/authoritative approach: the teacher interacts with the students in some form of classroom pattern (e.g., initiation-response-evaluation) but focuses on one particular perspective.
D. The non-interactive/authoritative approach: the teacher presents one particular perspective without student interactions.

Methodology

To examine ways of talking used by the participant teachers, naturalistic inquiry (Lincoln & Guba, 1985) was employed in order to collect and interpret data from the context of their classrooms. Mortimer and Scott’s (2003) four classes of the communicative approach, as outlined above, was then used as a framework to analyze their classroom talks. In doing so, classroom talks during instruction from each teacher were divided into a number of episodes based on the key idea of content being taught. Then, each episode was identified according to the four classes of the communicative approach. The results of the analysis were presented in the form of a case report of each teachers’ classroom talks.

Context of the Study

The study took place in three government secondary schools located in the central district of a southern province of Thailand. The schools were purposively selected based on “convenience sampling” (Patton, 2002: 241-242) as they are located 10-15 kilometers away from each other so that their location allows easy transportation for data collection. The normal organizational structure of the schools in the district is based on a two-semester system per academic year. The study was undertaken during the first semester of the 2008 academic year, which spans from June to September. It is important to note, according to a survey report by the education service area office, that almost all higher secondary students in the district were university-bound; 99% of students who completed secondary education in 2007 continued to study in the university level while only 1% of them went to work.

Participant Teachers

There were four physics teachers from the three schools who voluntarily participated in the study. They included two experienced female teachers (Mrs. Darika and Mrs. Rattana), one beginning female teacher (Ms. Jantra), and one beginning male teacher (Mr. Sakchai). The two beginning teachers taught in the same school. Descriptive information of the teachers is shown in Table 1. Pseudonyms are used to protect their anonymity.
As shown in Table 1, all the participant teachers have at least a bachelor’s degree in physics or physics teaching so that they were initially assumed to have enough physics knowledge to engage students in the different classes of the communicative approach. However, as Mrs. Darika had taught chemistry- and biology-related content in the lower secondary level for 26 years before returning to teaching physics in the higher secondary level four years before the study, she explicitly expressed uncertainty in her physics content. As argued at the outset of this paper, none of the teachers experienced professional development in the area that emphasizes classroom talks in promoting student learning, but did receive some instructional activities. Therefore, without being informed the purpose of the study, none of them except Mrs. Rattana, who preferred to use “kids’ language” during teaching, explicitly expressed the importance of classroom talks.

**Data Collection**

The primary data of the study was collected through extended classroom observations, which took approximately 100 minutes, in a particular class selected by each teacher. With agreement between the teachers and the researcher, classroom

<table>
<thead>
<tr>
<th>Education background</th>
<th>Mrs. Darika</th>
<th>Mrs. Rattana</th>
<th>Ms. Jantra</th>
<th>Mr. Sakchai</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s degree in physics teaching</td>
<td>Bachelor’s degree in physics teaching and Master’s degree in science education</td>
<td>Bachelor’s degree in physics and Diploma degree in science teaching</td>
<td>Bachelor’s degree in physics teaching</td>
<td></td>
</tr>
</tbody>
</table>

| Age (yrs)   | 52 | 36 | 26 | 25 |
| Teaching experiences (yrs) | All 26 | 14 | 1.5 | 2 |
| Physics 4 | 14 | 1.5 | 2 |
| Academic position² | Specialist | Senior | - | - |
| Teaching workload (periods/week) | 16 | 16 | 20 | 21 |
| Non-teaching responsibility | Yes | Yes | Yes | Yes |
| No. of students/class | 36 | 47 | 46 | 48 |
| Professional development experiences | - Classroom research | - Informal science teaching | - 5Es inquiry | - 5Es inquiry |
| | - Authentic assessment | - Authentic assessment | - Classroom research | - Classroom research |
| | - Classroom research | - Classroom research |
| Equipment available | Very supportive | Supportive | Inadequate |

Table 1: Descriptive information of the participant teachers

² According to Office of the National Education Commission (2000), teachers in Thailand can be classified into four levels (i.e., teacher, senior teacher, specialist teacher, and senior specialist teacher), which relate to their maximum level of salary. To upgrade his or her level, the teacher has to do and submit some academic work (e.g., conducting classroom research and developing instructional innovation) to be assessed by educational scholars.
observations for each teacher were planned to be undertaken once a week. However, due to other school activities, some of the planned classroom observations were skipped by the teachers, resulting in a different number of classroom observations among the teachers. The details of the classroom observations are presented in Table 2.

<table>
<thead>
<tr>
<th>Teachers</th>
<th>Total Number</th>
<th>Classroom Observations</th>
<th>Student Grade</th>
<th>Key Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mrs. Darika</td>
<td>6</td>
<td>July 23</td>
<td>10</td>
<td>Classical Mechanics (e.g., one-dimension motion, Newton’s laws of motion, friction, mechanical equilibrium, and simple machines)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>August 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>August 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>August 25</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>September 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>September 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mrs. Rattana</td>
<td>4</td>
<td>August 7</td>
<td>10</td>
<td>Mechanical Equilibrium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>August 14</td>
<td></td>
<td>Waves/Heat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>August 28</td>
<td></td>
<td>Radioactive decay</td>
</tr>
<tr>
<td></td>
<td></td>
<td>September 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ms. Jantra</td>
<td>6</td>
<td>August 5</td>
<td>11</td>
<td>Temperature, heat, and gas behaviors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>August 19</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>August 26</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>September 9</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>September 16</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>September 23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mr. Sakchai</td>
<td>5</td>
<td>July 30</td>
<td>10</td>
<td>Force and motion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>August 6</td>
<td></td>
<td>Magnetic force</td>
</tr>
<tr>
<td></td>
<td></td>
<td>August 20</td>
<td></td>
<td>Waves and their properties</td>
</tr>
<tr>
<td></td>
<td></td>
<td>September 3</td>
<td></td>
<td>Radioactive decay</td>
</tr>
<tr>
<td></td>
<td></td>
<td>September 17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: The details of the classroom observations

In the first classroom observation, the teachers introduced the researcher to their students. During each classroom observation, the researcher always sat at the back of the classroom (behind the students) with a video- and audio-recorder, and did not move himself to other places of the classroom until the teachers finished their instruction. As all the teachers were unfamiliar with qualitative data collection methods such as classroom observation, the researcher avoided taking notes in order to not make them feel like they were being evaluated. However, the researcher collected instructional materials used for reminders and later analysis.

Data Analysis

To analyze the data, all the recorded classroom observations were transcribed verbatim. Then, the transcripts were read in order to divide the teachers’ classroom talks into a number of episodes based on the researcher’s interpretation of what the teachers were trying to achieve or teaching purpose. After that, the content of the classroom talks in each episode was identified, according to the four classes of Mortimer and Scott’s (2003) communicative approach, based on patterns of discourse that the teachers enacted in their classroom. Only within-case analysis for each participant teacher was done in this study.
Results

The communicative approach commonly used by each participant teacher was presented in the form of case reports in this section. It is important to note at the outset of this section that all the teachers were very concerned with covering all content described in their school science curriculum and with helping students master solving numerical physics problems to perform well in national examinations. These teaching purposes can influence the communicative approach used by the teachers, resulting in particular patterns of classroom discourse (Mortimer & Scott, 2003).

Mrs. Darika

Data from six classroom observations indicated that Mrs. Darika’s classroom talks can be characterized as an interactive/authoritative approach as she intended to introduce scientific ideas to her students with attempts to gain their interaction. This was commonly done by using some questions for the students to respond to or even stopping for them to complete a sentence. As a consequence, her classroom was often occupied by the initiation-response-evaluation (IRE) pattern of discourse. For example, when she introduced the students to the concept of normal force by a demonstration of dropping two identical pieces of plasticine from different heights:

1. Mrs. Darika: Tell me, which piece dropped from 50 centimeters and which piece dropped from 200 centimeters? The one from my left or right hand?
2. Student: Right.
3. Mrs. Darika: This group answered right. Why?
4. Student: It was falling from a height of 200 centimeters.
5. Mrs. Darika: How do you know that this one was dropped from a height of 200 centimeters?
6. Some students: (The plasticine’s) shape was changed. Force.
7. Mrs. Darika: You answered force? Whose force?
8. Some students: Gravity.
   The Earth’s gravity.
   Force that acted on the plasticine.
   The Earth’s force.
9. Mrs. Darika: Why don’t you think that the ground acts as a force on it (plasticine)? Doesn’t the ground exert force?
10. Student: The force that the ground acted on [stopped speaking].
11. Mrs. Darika: The force that the ground acted on the plasticine.
   [Classroom observation, August 4, 2008]

The classroom talk above illustrated verbal interactions between Mrs. Darika and her students through a series of questioning and answering. Although the talk might look like it was being dialogic at the beginning (# 1-6), it ended with Mrs. Darika’s authoritative intervention (# 9). This can be explained in terms that, at the beginning of
the talk, the students responded what Mrs. Darika was focusing on so that there was no need for her to intervene in the talk. Once the students’ responses seemed to not be moving towards the concept of normal force (# 8) as Mrs. Darika intended, she then made an authoritative intervention in the form of questioning (# 9). This directed at least one of the students to consider that there was “force that the ground acted on the plasticine.” Similar evidence of the use of the interactive/authoritative approach by Mrs. Darika was also identified when she demonstrated numerical physics problem solving, when she reviewed what she had previously taught, and when she told stories to create student curiosity.

In addition to the interactive/authoritative approach as most commonly used by Mrs. Darika, there was some evidence that showed characteristics of the non-interactive/authoritative approach used in her classrooms. Such evidence occurred when Mrs. Darika informed the students how to conduct experiments as well as how to analyze data gained from the experiments. At any of these moments, she acted as a presenter who described all the equipment and procedures to make sure that the students, when doing the experiments, could get the intended results. For example, she described to the students how to do an experiment in order to “prove” Newton’s second law as follows:

How can we do the experiment? I’ll explain to you briefly. We’re gonna do an experiment to see whether or not acceleration is directly proportional to force and inversely proportional to mass. [In doing so,] you have to push the cart and see if it moves. Try to push the cart and then see if the cart moves with a constant velocity. [Next,] we will use force. I mean that the more force we use, the more acceleration the cart moves with. Is that true? We use one knot tied with a thread. Hook the thread with a pulley and tie it to the cart. Then, turn the time ticker on. … I give you only a half of an hour (to do the experiment).

[Classroom observation, August 4, 2008]

Only one of the episodes, where Mrs. Darika demonstrated how to solve a physics problem involving a beam that immediately changed status from rotational equilibrium to disequilibrium due to the hanging of one more object from the beam, could be characterized as an interactive/dialogic approach. The problem asks the students to determine which position on the beam the object should be hung. Such a dialogic discourse began when two students asked Mrs. Darika a question about the procedure she had used in solving the problem because they had employed a different procedure and got a different answer. Mrs. Darika then encouraged all the students to analyze the problem statement in order to find out what could bring about the different answers. However, as Mrs. Darika had partial understanding that “rotational equilibrium must have no rotation,” she ended the discussion abruptly and then lectured on another topic—that is, she changed to employ the non-interactive/authoritative approach.

Mrs. Rattana

Data from four classroom observations indicated that Mrs. Rattana’s classroom talks could be best characterized as an interchange between an interactive/authoritative and a non-interactive/authoritative approach. The authoritative dimension of the communicative approach used by Mrs. Rattana was explicitly expressed in her sentence
that she had to “explain to students in details.” However, she also preferred to gain student interactions as she often motivated them to answer her questions. Because Mrs. Rattana often evaluated the students’ answers in right-or-wrong manners, the students tended to hesitate to make contributions, resulting in the classroom being dominated by the teacher. For example, she asked the students to consider a physics problem about mechanical equilibrium and then told them as follows:

1. Mrs. Rattana: The principle for calculating a problem like this is that (students have to) write all forces acting on the objects, and then separately consider (forces acting on) each of them. Let’s start with the first one. [Drawing on the blackboard] What forces are acting (on the first object)? Do not write (or make notes), but look (at the blackboard) first.

2. Student: ‘T.’
3. Mrs. Rattana: Certainly, there is ‘T.’ Where is it pointing to? Left or right?
4. Student: Right.
5. Mrs. Rattana: What else?
6. Student: ‘mg.’

In analyzing the classroom talk above, Mrs. Rattana told the students “the principle” for calculating the problem (# 1) using a non-interactive/authoritative approach before asking the students a question. Then, the classroom talk was turned into an interactive/authoritative approach in the IRE pattern (# 2-6). Since the students did not answer Mrs. Rattana’s question, she did answer herself before encouraging student to interact (# 7).

It is interesting to note that evaluating the students’ answers in the terms of right-or-wrong, which represents Mrs. Rattana’s authority, might not be expressed explicitly through words. As can be seen in the excerpt above, any of the students’ answers that were consistent with what Mrs. Rattana expected continued instruction in a smooth manner. Oppositely, when unexpected answers or even silence were contributed by the students, Mrs. Rattana seemed to be unsatisfied. During this kind of moment, negative signals (e.g., sighing, long utterance, and nodding off or scratching head) were observable.

There was little evidence that could have indicated a dialogic dimension to the communicative approach used by Mrs. Rattana. This was represented when she said to the students, “Do not fear to be wrong. Each of you can use different procedures. In solving a problem, you are not limited to use the one I use.” Such an expression well indicated that Mrs. Rattana was aware that there could be a variety of ideas, or ways of thinking, related to content being taught. However, as often apparent, it was contradictory between what Mrs. Rattana said and what she did in the classroom. In other words, she told the students...
to be free in employing whatever procedures for solving a problem while she specified or strongly recommended only one procedure. Once the students employed a procedure different from the recommended one, Mrs. Rattana sent negative signals representing dissatisfaction. Thus, it was hard to say that she took the students’ ideas, or ways of thinking, into account.

Ms. Jantra

Similarly to the cases of the two experienced teachers, data from six classroom observations indicated that Ms. Jantra’s classroom talks could be characterized as an interchange between an interactive/authoritative and a non-interactive/authoritative approach. It was very often, if not always, that Ms. Jantra wrote content (i.e., definitions of physics terms, formulas, and statements of physics problems) onto the blackboard in order for her students to make a copy of it into their notebook. During the time that the students were copying, she often called the name of particular students and asked them questions related to what was being written. For example:

1. Ms. Jantra: Let’s study about heat and status change of substances. [Writing on the blackboard] On the topic of heat and status change of substances, one word that we must know is heat capacity. What is heat capacity? [Calling Student 1’s name]

2. Student 1: [Standing up but bending down to look at a document] Giving heat that makes a substance’ temperature higher.

3. Student 2: [Telling Student 1] For one unit.

4. Ms. Jantra: What is that again?

5. Student 1: It is heat that we give to a substance (and that) makes its temperature higher for one unit.

6. Ms. Jantra: [Writing what Student 1 said on the blackboard] What is the equation of heat capacity?

7. Ms. Jantra: [Writing the equation without waiting for the students’ response]

8. Ms. Jantra: On part of specific heat capacity, what is the definition of specific heat capacity? [Calling another student’s name] [Classroom observation, August 5, 2008]

Ms. Jantra began instruction by informing students of the content before asking a question and calling on one of them to respond (# 1). In doing this, she aimed to make the students pay attention to the content being taught as she reasoned that, “If I don’t call on them, … they would not listen to me. When I call on them, they must be alert.” Since the students were likely to realize Ms. Jantra’s expectation of the ‘right’ answer, they tried to recite what is described in the document instead of saying what they thought (# 2-3). This IRE pattern of classroom talks represented the characteristics of an interactive/authoritative approach. Once Ms. Jantra was satisfied by the answer from the student called upon, she continued the instruction by further asking questions (# 6). As can be seen in the classroom talk above, she sometimes presented content without utterance, using a non-interactive/authoritative approach by writing the content of the
blackboard instead (# 7). In the last turn (# 8), she turned back to using an interactive/authoritative approach again.

It is important to note that Ms. Jantra often asked close-ended questions, which required the students to recite definitions of physics terms from authoritative sources (e.g., textbook, documents distributed by the teacher, and the teacher’s sentences) or even stopped speaking for the students to play a guessing game to finish her sentences (which was similar to the case of Mrs. Darika). This kind of classroom talk did not allow the students to think much and express their own ideas, so that a variety of ideas related to the content being taught that could have emerged during the instruction were limited. As a consequence, a dialogic dimension of the communicative approach was not evident in her classroom.

Mr. Sakchai

Like the cases of the other three teachers, data from five classroom observations indicated that Mr. Sakchai employed both an interactive/authoritative approach and a non-interactive/authoritative approach. However, the latter seemed to be more dominant as Mr. Sakchai spent a lot of time explaining scientific ideas to the students without student interactions. For example, he said:

Today we’re gonna start a new chapter. Let’s take a look at the definition of force. What is the definition of force? People say that force is a power that can change an object’s motion status. The term ‘change (an object’s) motion status’ means that, if the object is stationary at first and then we act a force on it, it will change from being stationary to what? Moving. Or, if the object is moving, it doesn’t matter how fast or slow it is, and then there is a force acting on it or resisting its motion, what will happen with the object? From moving, it may move slower or even stop. So, this is a result of the force, isn’t it?

[Classroom observation, July 30, 2008]

The classroom talk above can be defined as a ‘question-like monologue,’ in which Mr. Sakchai presented content being taught in some forms of questioning but he immediately answered all the questions without providing wait time for the students to respond. Only on some occasions where a number of the students responded to Mrs. Sakchai’s question, an interactive/authoritative approach was then evident such as follows:

1. Mr. Sakchai: If there is a box at rest here and no one acts on it, no force is acting on it, does the box move to anywhere else?
2. Student: No.
3. Mr. Sakchai: No. If you then act on it but the net force is equal to zero, is the object still stationary?
4. Student: No.
5. Mr. Sakchai: Is it still stationary?
6. Student: No.
7. Mr. Sakchai: Being stationary. Or, in the case that it is moving with
constant velocity and no force acts on it, it will continue to move with that velocity along the straight line.

[Classroom observation, July 30, 2008]

In the classroom talk above, Mr. Sakchai was following his question-like monologue (#1) and he was interrupted by one of the students responding to his question (#2). Then, the classroom talk turned into an interactive/authoritative approach as Mr. Sakchai confirmed student’s response and continued to ask another question (#3). As the student’s response to his question was not consistent with Mr. Sakchai’s expectation (#4), he repeated the question (#5). Once the student could not answer the expected outcome (#6), Mr. Sakchai answered his own question and continued to use a non-interactive/authoritative approach in the form of a question-like monologue (#7).

It is important to note that Mr. Sakchai’s question-like monologues were likely to make the students know by themselves that they did not have to respond to any form of questioning during his talks. This was apparent once when some of the students responded to his question-like monologue and then Mr. Sakchai told them that “I don’t need the answer.” Thus, the question-like monologues were a form of talks in which Mr. Sakchai aimed to present content being taught with attempts to check whether or not the students were still listening to him. Also, similarly to the case of Ms. Jantra, it was apparent that Mr. Sakchai often stopped speaking for the students to finish his sentences, which did not allow a variety of ideas to emerge.

Conclusion and Discussions

This study examines the ways of talking employed by four Thai physics teachers in the social context of their classroom. In doing so, Mortimer and Scott’s (2003) communicative approach was used as a framework for analyzing, and identifying, their ways of talking. It was demonstrated in the study that all the participant teachers commonly used both an interactive-authoritative and a non-interactive/authoritative approach, and also an interchange between them. Very little evidence, which represented a dialogic dimension of the communicative approach, was found in some of the teachers’ classroom talks. To understand this kind of classroom phenomena, a discussion based on some factors that could influence the teachers’ ways of talking is provided in what follows.

On the dialogic—authoritative dimension

It is apparent in the study that the teachers’ classroom talks mainly relied on the authoritative dimension of the communicative approach in opposition to the promotion of the dialogic one in science education literature. This result of the study supports Scott et al.’s (2006: 606) claim that “dialogic interactions are notably absent from science classrooms around the world.” One potential explanation is that, as the participant teachers were concerned with covering all physics content described in their schools’ science curriculum, they with a given limited amount of time were more likely to focus on presenting physics content to the students without, or with little, attempts to explore their alternative ideas related to the content being taught. This kind of link between teaching
purpose (i.e., content coverage) and the authoritative dimension of the communicative approach has also been observed by Mortimer and Scott (2003).

Two other explanations are also possible when science education literature in Thailand is considered. According to Dahsah and Faikhamta (2008), the basic notion of constructivist perspectives on teaching and learning that students have prior knowledge of natural phenomena is rather new for many Thai science teachers. Thus, as the dialogic dimension of the communicative approach positions itself on this fundamental notion, the participant teachers may not have been aware of the importance of exploring the students’ alternative ideas of content being taught before introducing them to physics content. The absence of this awareness may have resulted in the domination of the authoritative dimension in the participant teachers’ classroom talks. Alternatively, it is also likely that limitation in physics knowledge, as evidenced in their classroom talks, may hinder the teachers, or create difficulty for them, to initiate and maintain a dialogic interaction with the students (Kijkuakul et al., 2008; see also Ladachart et al., 2010).

On the interactive—non-interactive dimension

It seems not surprising that the classroom talks of the participant teachers shifted to have both the interactive and the non-interactive dimension of the communicative approach. Perhaps, this could be the very fact that no one wants to talk alone all of the time; all teachers need student participation. Once the teachers felt that they had spoken too much, they began to ask questions to gain student interactions, or at least to check whether or not the students were listening to them. However, it is important to note that a shift between the interactive and the non-interactive dimension of the communicative approach used by the participant teachers was not in accordance with what Mortimer and Scott (2003) called “staging” over a planned sequence of lessons in order for the teacher to introduce and develop students’ scientific ideas. Rather, the shift appearing in the participant teachers’ classroom talks tended to be done in an arbitrary manner.

Implications

As argued by Mortimer and Scott (2003: 110), classroom talks used by teachers are “the existing invisible, taken-for-granted practice of science teaching.” Thus, the main purpose of this study, which examined classroom talks commonly used by four Thai physics teachers, is to make such a practice more ‘visible’ at least in Thailand’s science education literature. One general implication of this study is to prompt those involved in science education in Thailand, and elsewhere, to pay more explicit attention to science teachers’ classroom talks so that they will become more effective in supporting the teachers, through professional development activities, to appropriately use classroom talks in any given moment to promote student learning. At this point in time, it is expected that this paper has achieved, to some extent, this implication.

In the particular context of this study, one other implication is to use the results of the study to inform the participant teachers about the existing practices of their classroom talks and then to support them to extend such practices by employing different kinds of interactions with the students. As empirically apparent in the study, it may be necessary for the participant teachers to use more classroom talks that represent a dialogic
dimension. In other words, they may need to explore and take into account a variety of ideas, including those possessed by the students. It is more likely that the students, when faced with a variety of ideas, can become more able to compare and contrast those ideas with their own, so the students can learn scientific ideas in more meaningful ways.

References


Working Styles of Thai Administrators and Job Satisfaction of Selected Teachers in Pathumthani, Thailand

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ABSTRACT

The purpose of this descriptive-correlation study was to investigate the significant relationship between the working styles of Thai administrators and job satisfaction of teachers in the selected schools in Pathumthani, Nakornnayok Thailand. The overall mean working styles of Thai administrators was substantial which was obtained from, details-oriented, relationships-oriented, results-oriented and socially-oriented. The overall mean for job satisfaction of teachers was high which was obtained from achievement, advancement, recognition, salary, and supervision and working condition.

Based on the foregoing findings, the following conclusions are drawn: The working styles of Thai administrators are substantial. High job satisfaction was found out among the teachers. The gender, teaching experience, and academic qualification are not the factors of difference in the job satisfaction of the teachers. The correlation between working styles and job satisfaction is substantial. Based on the foregoing findings and conclusions, the following recommendations were offered: The working styles of Thai administrators with their being relationship-oriented and socially oriented were rated undecided. Teachers recommend that the administrators should build up more on their interpersonal relationship among teachers and to let teachers as member of the school community be a part also in decision makings and implementation process and recognize their effort done. The school administrator should create and design program to foster closer relationship among the academic personnel. The school administrator should implement and design some seminars and workshops for teachers about awareness on their working style to improve more on their working relationships with their administrators and to their colleagues. The correlation between working styles of Thai administrators and job satisfaction of teachers in the selected schools in Pathumthani, Thailand is substantial. The future researcher could duplicate this study using other working styles with private, public, Christian or Non-Christian, International or Bilingual schools.

Keywords: Working Styles of Thai Administrators

Introduction

Every school organization has its own unique working capacity and capability in achieving common goals in cooperation with each Community members, who are equipped with different working styles bonded as one in sharing common goals. In the process, the unique working styles of each individual come out which serve as the school’s assets to harmony and success. On the other hand those unique working styles when not properly fully utilized, serve as the school’s liabilities and hindrance to success.
Such liabilities that are unbenefficial to school organizations due to different working styles include the tensions, conflicts, misunderstandings among Community members, much more so between the Principal and her team members. Principal as the head of the school community plays a major role in running the organization, processes and implementations of every policy involved in the fulfillment and realization of the organization’s vision and mission. However, just like any other members of the school community, the principal has also his/her working style which differs from other members of the organization. Principal’s working style even made more visible since he/she is the figurehead, direct agent and mainstream of communication to his/her subordinates whenever and wherever.

Members of the community especially the teachers might find it either easy or hard to cope with the Principal’s working style. It seemed to be alright at times when work is not heavy and everything runs smoothly. The Principal and the teachers do their task on their own working styles to get things done. However if the work is heavy and there is a close working condition with the Principal who has different working styles, this creates a lot of stress on teachers’ part.

Tension then arises and definitely can lead to conflicts. Teacher involved in the conflict is affected in his/her work and his performance; furthermore it affects the working relationship with his Principal and worse if the whole school organization is affected.

Reality depicts that we can’t always have all we want. School organizations have members who share the same goal but they have different working styles in achieving it because we can always achieve everything we want. By recognizing one’s working style in the school organization, it is possible to reduce stress and produce a better harmonious working relationship that creates more success to the whole school organization.

Statement of the Problem

In many cases, the incompatibility of administrators working style with the teachers working styles causes conflicts and frustrations. Teacher’s conflicts and frustrations influence job satisfaction. Thai administrators’ difference in their working styles with the teachers has a big impact directly to the teachers and the whole school organization. It may be acceptable and satisfying if teachers see it as a source of satisfaction or a means to future satisfaction (Robbins 1997).

In this case the performance and level of job satisfaction is affected positively and creates a very impressive outcome which furthermore reflects a good school organization (Methee 1997). However administrators’ difference in working style is one of the factors and the main source of untimely conflict, frustrations, undesirable situations, mismanagement, and inequities and that are affecting their job performance. Teachers as human beings do also have their own preferred working styles which somehow differ with their administrators’ styles. It is said that it may seem to be alright at first but at the end leads to chaos due to simply they differ in their working styles and resist understanding, respecting and giving way (McIntyre 2007).

The resistance of the teachers could be reduced through understanding, respecting and identifying the working style of their administrator and effectively use the working style skills to remove the preferred styles if not to eradicate then eliminate conflict issues,
frustrations and improve individual performance and increase their job satisfaction (Methee 1986, Kahn Na Katn 1960).

Minimal research attention has been directed towards the importance of knowing administrators working style and its relationship to job satisfaction. Most studies relate levels of job satisfaction relates to Thai administrators management styles and administrative styles (Lavarut 1990, Chalit 1990).

The unique observable working styles behavior of the Thai administrators if not given attention creates tension that leads to conflict between the administrators themselves and their teachers conflict that leads to frustrations among teachers and affects their job satisfaction. Much more, the whole school organization is affected.

By finding out the significant relationship of Thai administrators working style to the job satisfaction of the teachers using quantitative approach, the researcher can better isolate the variables and formulate recommendations of making the administrators as more effective leaders and increase the job satisfaction of teachers.

The Ministry of Education of Thailand, Teachers Council of Royal Kingdom of Thailand and School Administrators and Teachers can plan to provide training awareness on the importance of knowing and understanding working styles to eliminate conflict among members of the organization and increase the teachers’ job satisfaction in selected schools in Pathumthani Province. To guide this study the following research questions were formulated.

**Research Questions**

This study investigates the working styles of Thai administrators. Specifically, this study seeks to answer the following questions:

1. What are the working styles of Thai administrators in the selected schools in Pathumthani, Thailand when analyzed according to:
   1.1 Details-Oriented
   1.2 Relationships-Oriented
   1.3 Results-Oriented
   1.4 Socially-Oriented?

2. What is the job satisfaction of teachers in the selected schools in Pathumthani, Thailand when analyzed according to:
   2.1 Achievement
   2.2 Advancement
   2.3 Recognition
   2.4 Salary
   2.5 Supervision
   2.6 Working Condition?

3. Is there a significant difference in the job satisfaction of teachers in the selected schools in Pathumthani, Thailand when analyzed according to:
   3.1 Academic Qualification
   3.2 Gender
   3.3 Nationality
   3.4 Teaching Experience

4. Is there significant relationship between the working styles of Thai administrators and job satisfaction of teachers in the selected schools in Pathumthani, Thailand?
Objectives:

The purpose of this study is to determine the significant relationship of Thai Administrators working styles and job satisfaction of selected teachers in Pathumthani, Thailand. It aims to achieve the following objectives:

1. Determine the working styles of Thai administrators in the selected schools in Pathumthani, Thailand when analyzed according to:
   1.1 Details-Oriented
   1.2 Relationships-Oriented
   1.3 Results-Oriented
   1.4 Socially- Oriented;
2. Determine the job satisfaction of teachers in the selected schools in Pathumthani, Thailand when analyzed according to:
   2.1 Achievement
   2.2 Advancement
   2.3 Recognition
   2.4 Salary
   2.5 Supervision
   2.6 Working Condition;
3. Identify the significant difference in the job satisfaction of teachers in the selected schools in Pathumthani, Thailand when analyzed according to:
   3.1 Academic Qualification
   3.2 Gender
   3.3 Teaching Experience; and
4. Determine the significant relationship between the working styles of Thai Administrators and job satisfaction of teacher in the selected schools in Pathumthani, Thailand.

Hypotheses

Ho: 1. There is no significant difference in the job satisfaction of teachers in selected schools in Pathumthani Province when analyzed according to:
   1.1 Academic Qualification
   1.2 Gender
   1.4 Teaching Experience

Ho: 2. There is no significant relationship between the working styles of Thai administrators and the level of job satisfaction of teachers in selected schools in Pathumthani Province

Significance of the Study

The output of this study will benefit the following persons:

School Administrators. The findings of this study will provide baseline data on working styles that influence high level of job satisfaction of teachers in terms of
motivational and hygienic factors for Thai administrators for planning faculty development program and providing benefits for teachers.

**Teachers.** The output of this study will provide awareness among teachers on the importance of understanding and respecting their administrators’ working styles in building up good relationship, boosting up their work performance and increase the level of job satisfaction.

**Students.** The results of this study will benefit the students as they are the primary beneficiary of the enhancement programs designed by the administrators and teachers.

**Researchers.** The results of this study will give idea to further researchers to investigate other factors influenced by the working styles of administrations aside from indicators of job satisfactions of teachers not covered by this study.

**Theoretical/Conceptual Framework**

This study is based on the theory of Marston (1987) that the working styles, are the predictors of teachers’ job satisfaction. McIntyre (2008) supported the theory mentioned above that the working styles of the administrator have significant relationship to job satisfaction of teachers. Another author purposed the same theory that the working styles of administrators influenced the job satisfaction of teachers (Alessandra 1990).

**Scope and Limitation of the Study**

This study is limited to those selected one hundred fifty (150) teachers who are working in the selected schools in Pathumthani Province. The survey is carried out among Thai and foreign teachers. Questionnaires are distributed in selected schools and retrieved for tabulation.

1. This study determines the significant relationship between the working styles of principal, the administrators, and job satisfaction of two-hundred (150) teachers in the selected schools in Pathumthani Province. The findings should not be generalized for all Thai school administrators in Thailand.

2. The present study focuses on investigating the significant relationship between the working styles of Thai administrators and job satisfaction of teachers with specific indicators. Therefore, its findings should not be generalized for other indicators not covered by this study.

3. The present study is conducted in specific period of time (February-March 2010). Therefore, its findings could not be generalized.

**REVIEW OF RELATED LITERATURE**

Discussed in this section are related literature and studies taken from the books, internet, journals, and periodicals related to the present study.

**Working Styles of Administrators**

Over the past thirty years working styles have been used extensively to train managers and sales personnel to increase behavioral versatility through role shifting. This model has been the subject of extensive research and application in the private sector, as well as the focus of academic testing. Working styles refer to a particular pattern of behaviors that are exhibited in everyday interactive situations. In other words it refers to a person’s observable interactions (Peterson 2008). Underlying assumptions about human
behavior that frames the concept of Working Style: Human develop relatively stable behavior patterns.

Humans from immediate impressions about others based are on verbal and non-verbal behavior. The way individuals behave toward one another is largely determined by their perception of each other. (Buchholz, 1976, one’s it is being understood it is then easy to predict one’s reaction to a given stimuli. Furthermore this forms the basic understanding of understanding other people and establishing a healthy human relationships. This is very important to school administrators because of the many human interactions they are required to deal each day. It may be individual, group interactions within or outside organizations. (Alessandra 1990, Marston 2000, O’Connor 2008)

Job Satisfaction

Job satisfaction is defined as the feeling of fulfillment when the needs or motivation of a person are answered (Wolman 1985). This motivates him to do the work willingly to achieve the objectives of the organization (Parker, Henry and Ogleshy, 1992). A person is satisfied with the when that work brings about compensation, both material and non-material, and the fulfillment of his basic needs (Strauss, George and Leonard 1980). The fulfillment of a person’s basic needs reduces stress which causes job dissatisfaction (Morse 1993) and makes him satisfied with his work atmosphere (D’Ella 1990 Somyos 1990).

METHODOLOGY

Presented in this section are the research design, research respondents, research instruments, data-gathering procedure and statistical treatment of data.

Research Design

The descriptive-correlation method was used in this study. This method was being used to determine the profile of the respondents as to their gender, academic qualification, area of discipline, teaching experience and nationality. The method determined the nature of prevailing conditions, personal situational environment and factors and practices. In correlation research, it involves collecting data in order to determine whether, and what degree, a relationship exists between two or more variables (Gay, 1996).

Therefore, this method is appropriate in this investigation of the fact that it assesses the working styles of administrators and teachers job satisfaction

Respondents of the Study:

The respondents of the study were the teachers from the selected schools in Pathumthani Province, Thailand. Their were 150 identified respondents determined using the Slovin’s equation. The purposive sampling method was employed in selecting the respondents of this study. Sample respondents were from three identified schools as given in Table 1.

Table 1. Distribution of Respondents by Schools
<table>
<thead>
<tr>
<th>Name of Schools</th>
<th>Number of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phra Visuthiwong School</td>
<td>32</td>
<td>21.33</td>
</tr>
<tr>
<td>Lamlukka, Pathumthani</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yam-Saard School</td>
<td>98</td>
<td>65.33</td>
</tr>
<tr>
<td>Lamlukka Pathumthani</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pongsuwansittaya School</td>
<td>20</td>
<td>13.33</td>
</tr>
<tr>
<td>Lamlukka, Pathumthani</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

**Research Instrument and Techniques:**

The research study conducted through the use of survey questionnaire. The researcher distributed to each respondent the questionnaires which were translated into Thai language for better understanding. These questionnaires were divided into three parts. Part I dealt on the personal information. Part II dealt on working styles of Thai administrators and Part III dealt on the job satisfaction rates.

**Data Gathering Procedure**

The researcher wrote a letter of request to the Director asking permission to conduct the research survey to 150 selected teachers on the relationship of Thai administrators working styles and job satisfaction of teachers in selected schools in Pathumthani Province. The survey questionnaire done by the researcher, were initially checked by the research adviser followed by the immediate revision. The researcher then looked for the experts to validate the questionnaires. After the validation, the researcher asked Thai person for the translation of the questionnaires. The researcher personally distributed the questionnaire with the help of the Thai teachers and later on retrieved the questionnaire from the respondents. It was done a week before the actual survey was conducted. The data were organized and tabulated in preparation for the analysis and interpretations.

<table>
<thead>
<tr>
<th>Numerical Rating</th>
<th>Descriptive Equivalent</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.3 – 5.0</td>
<td>Strongly Agree</td>
<td>The working style is far above the expected level</td>
</tr>
<tr>
<td>3.5 – 4.2</td>
<td>Agree</td>
<td>The working style is above the expected level</td>
</tr>
<tr>
<td>2.7 – 3.4</td>
<td>Undecided</td>
<td>The working style is within the expected level</td>
</tr>
<tr>
<td>1.9 – 2.6</td>
<td>Disagree</td>
<td>The working style is below the expected level</td>
</tr>
<tr>
<td>1.0 – 1.8</td>
<td>Strongly Disagree</td>
<td>The working style is very far below the expected level</td>
</tr>
</tbody>
</table>
4.3 – 5.0  Strongly Agree  SA
3.5 – 4.2  Agree  A
2.7 – 3.4  Undecided  U
1.9 – 2.6  Disagree  D
1.0 – 1.8  Strongly Disagree  SD

d| n  | D   | M   | H   | VH  |
---|-----|-----|-----|-----|
| 4.3 – 5.0 | Very High | The working style is far above the expected level |
| 3.5 – 4.2 | High | The working style is above the expected level |
| 2.7 – 3.4 | Moderate | The working style is within the expected level |
| 1.9 – 2.6 | Low | The working style is below the expected level |
| 1.0 – 1.8 | Very Low | The working style is very far below the expected level |

Validity and Reliability Test
As regards to the validity of the questions in the questionnaire, the researcher intended to distribute the draft to 25 respondents who did not take part in the actual number of respondents. The responses of these initial respondents were analyzed. Ambiguous items were changed, rephrased or simplified.

The researcher utilized the reliability formula in determining the reliability of each question in the questionnaire. The services of a statistician needed in this portion of the study as well as in the portion wherein the statistical treatment of responses will be employed.

Data Analysis Tools
The data were gathered through the questionnaire and tallied using the following tools:

**Weighted Mean.** This was used to describe the working styles of Thai administrators and level of job satisfaction of teachers.

**Independent t-test.** This was used to determine the significant difference of job satisfaction when grouped by gender.

**Analysis of Variance (ANOVA).** This was used to determine the significant
difference in job satisfaction of teachers.

**Pearson r.** This was used to determine the significant relationship between Thai administrators' working style and teachers' job satisfaction.

**SUMMARY, CONCLUSIONS AND RECOMMENDATION**

Presented in this chapter are the summary, conclusions and recommendations based on the study of the study.

**Summary of Findings**

The findings of the study are presented as follows:

1. The overall mean value for working styles of Thai administrators is 3.61 or agree which was obtained from 3.85 or agree for details-oriented, 3.44 or undecided for relationships-oriented, 3.82 or agree for results-oriented and 3.34 or agree for results-oriented.

2. The overall mean value job satisfaction is 3.54 or high which was obtained from 3.58 or high for achievement, 3.61 or high for advancement opportunities, 3.32 or moderate for recognition, 3.19 or moderate for salary, 3.4 or moderate for supervisor support and 3.59 or high for working condition.

3. When analysis was done by gender, the computed t-value for achievement is .177 or not significant with p-value of .859; the t-value for Advancement opportunities is -.773 or not significant with p-value of .441; the t-value for recognition is .275 or not significant with p-value of .784; the t-value for salary is .127 or not significant with p-value of .899; the t-value for supervision is .338 or not significant with p-value .736; the t-value for working condition is .033 or not significant with p-value of .973; and the overall computed t-value for working styles of Thai administrators is .145 or not significant with p-value of .855. Since the overall p value for job satisfaction is higher than .05 alpha, therefore the null hypothesis is accepted.

When grouped by teaching experience, the computed F-ratios are 1.860 or not significant with .159 for achievement; 2.132 or not significant with .028 p-value for recognition; .141 or not significant with .122 p-value for salary; 1.414 or not significant with .279 p-value for supervision support; and 2.106 or not significant with .246 p-value for working condition; 3.653 or significant with .125 p value for advancement opportunities; and the overall computed F ratio is 1.869 or not significant with .158 p value. The values for achievement, recognition, salary, supervisory support and working condition are not significant for their probability levels are greater than 0.05. but the value for advancement opportunities is significant for it’s probability level is lesser than0.05. Though, these values differ but the overall F-ratio is not the same when analyzed by teaching experience.

When grouped by academic qualification, The computed F-ratio for resignation is 1.619 or not significant with .188 for achievement; 1.294 or not significant with .279 p-value for advancement opportunities, .939 or not significant with .424 p value for recognition; 1.622 or not significant with .187 p-value for salary; 1.294 or not significant with .279 p-value for supervision support; 1.026 or not significant with .366 p-value for working styles; and the overall F-ratio was 1.57 with .197 p-value or not significant.
Since the overall p-value is higher than .05 alpha, therefore the null hypothesis is accepted.

4. The computed r-value for the correlation between details-oriented and overall job satisfaction rate is .834 or significant, .780 or significant between relationships-oriented and overall job satisfaction rate, .893 or significant between results-oriented and overall job satisfaction rate, and .789 or significant between socially-oriented and overall job satisfaction rate. The overall working styles were correlated to the overall job satisfactions of the teachers and the computed r-value is .695 or substantial. It means that the influence of working styles Thai administrators to the job satisfaction of teachers is substantial or marked relationship.

Conclusions

Based on the foregoing findings, the following conclusions are drawn:
1. The teachers strongly agree on working styles of administrators as being details-oriented and results-oriented.
2. Teachers’ job satisfaction is high.
3. The gender, teaching experience and academic qualifications are not factors of the difference in the job satisfaction of the teachers.
4. The correlation between Thai administrators working styles and job satisfaction of teachers is substantial or marked relationship. It implies that administrators working styles influence the high level of job satisfaction of teachers in the selected schools in Pathumthani, Thailand.

Recommendations

Based on the foregoing findings and conclusions, the following recommendations were offered:
1. The teachers strongly agree on working styles of administrators as being socially-oriented and socially-oriented. All four working styles should be given attention and improvement, since all of the aspects of working styles are very important in the working environment not really to free but to minimize chaos, stress and improve jobs satisfaction of not only teachers but administrators as well in achieving common goals for quality education.
2. The school administrator should implement and design some seminars and workshops for teachers about awareness on their working style to improve more on their working relationship with their administrators’ and to their colleagues.
3. The correlation between working styles of Thai administrators and job satisfaction of teachers in the selected schools in Pathumthani, Thailand is substantial. Socially-oriented and relationship-oriented type of working styles was not given fairly given attention by the administrator. It is very important to both teachers and administrators to give attention to these working styles to job satisfaction of teachers in terms of their supervision, salary, recognition. The future researcher could duplicate this study using other working styles with private, public, Christian or Non-Christian, International or Bilingual schools.
Figure 1. Showing the Conceptual Framework of the Study

Variables

**Thai Administrators Working Styles**
- Details-Oriented
- Relationships-Oriented
- Result-Oriented
- Socially-Oriented

**Job Satisfaction**
- Achievement
- Advancement
- Recognition
- Salary
- Supervision
- Working Conditions

**Moderator**
- Academic Qualification
- Gender
- Teaching Experience
A Study of Student’s Mathematical Communication in Teacher Professional Development

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ABSTRACT

This case study was conducted by qualitative research design consisting ethnographic approach, teaching experiment, protocol analysis and analytic description. The objective of the study was to analyze cognitive aspect and emotional aspect in students’ mathematical communication in teacher professional development innovates by lesson study and open approach. The targeted group was 23 first graders at Ban Bungniambungkrinoon School, Khon Kaen Province. Three Problem situations; school bus problem (6+3+4), playing sand in playground (7+5-8) and eating apples(13-4-2) was used as learning activity in this teaching experiment. The data from classroom teaching episodes was analyzed by protocol analysis according to characteristics of mathematical communication as an cognitive aspect proposed by Emori (2005), then analyzed emotional experience as an emotional aspect proposed by Inprasitha (2001).

Research findings revealed that mathematics classroom taught by open approach through 4 steps; posing open-ended problem situation, student’s self learning, whole class discussion and summary through connection; three characteristics of mathematical communication in view of cognitive aspect found in classroom were rigorousness, economy and freedom. Moreover, in view of emotional aspect we found that student have emotional experience in every step of teaching. Emotional experience that often occurred were self confidence, excitement and enjoyment, introspectiveness, paying attention, accepting other ideas, awaiting answers and amazing respectively.

Discussions: from the findings of this research, not only the cognitive aspect could be evaluating mathematical communication in classroom, but also emotional aspect can help teacher to understand students’ mathematical concept and develop them.

Keywords: mathematical communication, cognitive aspect, emotional aspects, open approach and lesson study

Introduction

Thailand was jointly participation with the Trends in International Mathematics and Science Study (TIMSS) in 1999. Mathematics result shown that Thai students’ score was 27 from 38 countries in the world. In 2007, the rank was 29 from 48 countries in the world. In 2003 and 2006 Thailand was jointly participation with the Program for International Student Assessment (PISA). All scores in mathematics, science and reading were low. These result indicated that the competency of Thai’s people in future might
gain a problem. Therefore, Thailand needs to develop mathematics competency. This event was reflect about how fail of Thailand’s education reform in 10 years.

Chenggul, W. (2008) claim in the report of the Education of Thailand state during 2007-2008 that educational reform in Thailand still have many problems to improve Thais’ education development. Thailand has low capability competition compare with some other average developed countries. Students’ scores of mathematics, science and others subject achievement seems to reflect educational quality. It indicated lower than the other countries. In generally, Thailand education is low quality.

The deterioration state of educational quality status was failed from educational reform. Inprasitha (2006) stated that although Thailand enacted the act of parliament of education and tried to reform education in 1999. Most of teachers had stilled traditional teaching style – focus on teaching over all of contents but do not emphasize on students learning process. Wasee (2000) stated that the heart of educational is learning reform. Fernandez et al. (2003) proposed that teacher need to know how to understand students’ learning process and know how to verify their teaching practice.

Fundamental ideas of lesson study have had the most effective method to improve teaching development in classroom. These ideas had applied for the lesson development in real classroom context. The challenges that attribution such as change need to happen for develop students’ learning in classroom, collaboratively exchange knowledge and problem with other teachers and the group of teacher to perceive the goal of teaching too (Inprasitha and Loipha, 2008). Lesson study had attention from around the world as the ways for develop teaching and learning mathematics (Inprasitha and Loipha, 2008). Integration of lesson study and open approach used for pilot schools in Khonkaen province since 2007 by center of mathematics education Khon Kaen University as teacher professional development focus on students’ learning process.

Emori (2005) stated that mathematical communication are mathematical communication structure be suspicious in communicator participate. Mathematical communication structure has three characteristics rigorousness, economy and freedom of thinking.

Sierpinska (1998) stated that communication can identify educational system. Emori (2005) proposed that almost mathematics education issues related to mathematical learning communication. Learning is adapted stimulus surrounding and create a new one by learners’ knowledge keep in mind. Learning process needs to use communication process. Study of communication is the most important study in mathematics education. The Third APEC-Tsukuba International Conference Innovation of Classroom Teaching and Learning through Lesson Study -Focusing on Mathematical Communication announced communication development in classroom are important for improve students’ mathematical thinking. Khalid (2007) stated that open-ended problem was used for encouraging communication in classroom. Students had opportunity to communicate and discussion about strategies for solving various problems.

Nohda (2000) expressed that the features of open-ended classroom are discussion various students’ ideas and develop these ideas through their classmate experiences and teacher advice. So, classroom focus on open-ended approaches could contribute students’ interest and share their ideas for discussion and mathematical communication.

Open-ended approaches have four steps. The first step is posing open-ended problems situation. The second step is students’ self study. The third step is the whole
class discussion and the last step is summary with connection. Every step show that communication help student to learn mathematics.

Piaget (1981 cited in Inprasitha, 2005) asserted that there is no any cognition mechanism which be without affective components. McLeod (1992) proposed that if affective issues are integrated in a study of cognition then the mathematics education research will be strengthen. Hannula et al. (2004) proposed that the important research problems in the present are making understanding of the relation between cognition and affection. McLeod (1992) stated that in the past, there is less of researchers playing attention to consider the emotion in their study. Nowadays, there is the trend to study which gives more details about the emotion and cognition process.

This study was done in school context under the center of research in mathematics education by using lesson study and open approach innovation in mathematics classroom for three years. Open approach is method of teaching in the cycle of lesson study. It means that they are many peoples, such as teacher, teacher observer, researchers, research assistants, school coordinator and experts, all of them are collaboratively in plan, do and see in teaching and learning process. The objective of this study was to analyze cognitive and emotional aspect in students’ mathematical communication in teacher professional development innovates by lesson study and open approach.

THEORETICAL FRAMEWORK

Two framework was used in this study for analyze data.
Methodology

This research was Qualitative Research included the Ethnographic Approach and Case Study Approach, Teaching Experiment and Action Research as follows: the targeted group were 23 first graders at Ban Bungniambungkrinoon School for teaching experiment, then one group of three students was chose from that class for a case.

Findings and Discussions

Findings

1. Findings for the first objectives.
   Open Approach is a method of mathematics teaching in classroom consists of 4 steps: posing open-ended problem situation, student’s self learning, whole class discussion and summary through connection. Mathematics classroom were give an opportunity for students communicates mathematics ideas in every steps. The result indicated that three characteristics of mathematical communication in view of cognitive aspect found in classroom were rigorousness, freedom and economy respectively. The result showed that rigorousness is the most characteristics found in every steps of the teaching. Freedom and economy characteristics were found in secondary.

   In each step of open approach: the first step rigorousness characteristic of mathematical communication between teacher and students in posing the problem step was found as a majoring characteristics in order to support student to understand problem situation and able to access problem situation. Communication in this step needs to focus on common understanding among them.

   In second step, students have more opportunities to communicate. Problem solving in classroom focused on divergent thinking and creative thinking, it supports
student to produce different solutions. Communication in this step needs characteristics of rigorousness and freedom in order to produce various ideas and solutions.

In third step, students were able to present their own ideas and discuss with teacher and classmates questions. The students have to present their own ideas clearly both themselves and their classmates. Communication in this step needs characteristics of rigorousness.

The last step, the teacher tried to propose the matter of lesson through connecting students’ ideas in order to polish students’ understanding. Communication in this step needs characteristics of rigorousness which help student make sense with correct concepts.

2. Findings for the second objectives.

Open Approach is a method of mathematics teaching in classroom consists of 4 steps: posing open-ended problem situation, student’s self learning, whole class discussion and summary through connection. Mathematics classroom were give an opportunity for students communicates mathematics ideas in every steps. The result, from view of emotional aspect, indicated that student have emotional experience in every step of teaching. Emotional experience that often occurred were self confidence, excitement and enjoyment, introspectiveness, paying attention, accepting other ideas, awaiting answers and amazing respectively.

The first step of teaching, posing problem situation, the teacher focused on non-routine problem situation comprising with materials design that make excitement for student. The problem situation built emotional experience like exciting, enjoy and enthusiasm. Teacher’s questioning helped students to understand problem situation. It causes students have self confidence in their own solutions.

In second step, students shared their solving open-ended problem together. Students were able to solve given problem and explored and shared different solutions. It showed that students have most of emotional experience in introspectiveness. When they were able to think by themselves, they feel proud, satisfy, exciting and enjoy, confident and wait in their solutions expectantly. In addition, as students shared mathematical ideas, it causes students have emotional experience in accepting other ideas from their classmates. When some one in the classroom raised some different arguments, it caused them to suspect and uncertain.

In the third step, students were able to present their own solutions and discuss on classmates and teacher questions. In this step, students answer questions confidently. It showed that students have emotional experience in their self confidence and exciting and enjoy. When some student presents their idea on face of blackboard, other students paid more attention to listen. It caused students have emotional experience like interesting, concentrating their presentation, aware and accepting other ideas. If someone disagreed with those solutions, they have emotional experience in seriously disagree.

The last step, the teacher tried to propose the matter of lesson through connecting students’ ideas and questions about expected concept that student need to learn in the lesson. In this step, students just learned their classmates’ solution, then student have emotional experience in confidence with their own method that have learned before.
Discussions:

1 Discussion from cognitive aspect

As a result, the characteristics of communication from cognitive aspect in students’ mathematical communication in each step of teaching, we found that rigorousness is the most characteristics found in every steps of the teaching. Freedom and economy characteristics were found in secondary. Because of open approach was used in this classroom, it give opportunity for students to communicate mathematically. Students have opportunity to share discussion with their classmates and teacher. It conforms to Nohda (2000) claimed that the characteristics of open-ended approach have to discussion with students’ various ideas and develop those ideas and their perspectives through common experiences and under teacher’s advise. Thus, the classroom focuses on open-ended approach are able to construct common interest which focuses on discussion and mathematical communication. Furthermore, the characteristics of communication from cognitive aspect in students’ mathematical communication in each step of teaching, we found that rigorousness, economy, and freedom characteristics respectively of students’ thinking was the most important cognitive aspect in order to teacher’s understanding students’ mathematics structure in classroom. It may be claimed that we could use this frame for evaluate students’ communication. It conforms to Emmori (2005) claimed that the rigorousness, economy, and freedom characteristics of communicators’ thinking for evaluation mathematical communication in classroom.

2 Discussion from emotional aspect

In this study the emotional aspect has been occurred. Open approach as method of teaching in mathematics classroom was giving an opportunity for students communicates mathematics ideas in every step. From view of emotional aspect, students potential in doing mathematics, students have emotional experience in every step of teaching. Emotional experience that often occurred were self confidence, excitement and enjoyment, introspectiveness, paying attention, accepting other ideas, awaiting answers and amazing respectively. The results shown that students have freely explored how emotional experience can be expressing their thinking as they can do. In addition, students have enjoy in learning, its help them feeling happy too. It is the most aspect to develop students’ attitudes toward mathematics learning. Therefore, teacher needs to understand students’ emotional experience in order to make sense of students’ emotion and their feeling. It conforms to Emmori (2005) claimed that good lesson could develop students’ thinking and their feeling. Thus achieving the students’ emotional experience is a useful to understanding the students’ conceptual development and it is a useful to help student discovery the solutions. In addition, emotional aspect could enhance students in mathematics problem solving experience as it reflects students’ ideas directly related to real life experience in themselves.
Recommendations: from the findings of this research, open approach and lesson study should add in the mathematics classroom provides a platform for mathematics education teachers.

1. Implementations for teaching and learning

1) The teacher could be use open approach as teaching method for school mathematics and doing their research for learning development with mathematical communication. Addressing an improvement or change method of arrangement mathematics activity, teachers’ role needs to search for student’s process of meaningful learning in classroom. In addition, student center is the most important in mathematics classroom. The teachers, who teach school mathematics, may be use open approach to integrate mathematics content knowledge, mathematical processes and affective domain. These matters are difficult to happen in mathematics classroom for students’ mathematical communication as mathematical learning processes and develop affective domain.

2) The teachers, who teach school mathematics, may be use open approach to integrate with lesson study. This process need to collaborative lesson plan, observation, and reflection. It make teacher have opportunity to develop themselves and change the role of their teaching.

3) The teacher use open approach should be give an opportunity and encourage her students to explore, communicate, argue, discuss, check, proof, reasoning, and present their ideas and solutions. At the same time, student doing activity, the teacher do not interfere student thinking either not to show any ideas or not to give some data for solves that problem.

2. Further research

1) Educational Institute and Research Institute can be use research results for identify research trend for develop learning and teaching mathematics consistent with educational reform focus on students’ learning process.

2) The teacher as researcher play the expectation role of teaching follow Thailand enacted the act of parliament of education in 1999. They can use protocol analysis to study students and their classroom in each aspect such as analyze students’ mathematical problem solving processes for seek method of learning with understanding in mathematical concept. Protocol analysis can help teacher for analyze the nature of mathematics in the compulsory education that students can learn by themselves. Protocol analysis can help teacher as researcher for understanding more detail about data and improve their mathematics lesson.

3) The researcher wish to discover the model or method for improve model of classroom development. They need to collaborative with the school teacher in the long term and to be continue in order to lead the answers. This result can help for shift classroom development.

4) The researcher, who wish to discover the model or method for improve model of classroom development need to perform both theory and practices in order to see the conformation of reality in practice for describe more detail in data, which those researchers can extend their study.
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Teachers' Disciplining Styles and Students' Attitude towards Authority

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ABSTRACT

Students’ attitude toward authority determines to what extend instructional needs could be met without having to waste precious study time in managing and dealing with students’ behaviors. This research focuses on investigating the predictors of attitude toward authority. Variables involved were students’ gender, year level and parents’ monthly income, as well as their authoritarian personality and perception about six different disciplining styles used by teachers. The study involved 801 students, studying in first and second year high school during the time of data collection. They come from widely distributed income groups. 89% of them reported that their academic performance is between average and excellent. The results and findings of the study reveal that students hold a neutral attitude toward authority – in other words, they do not hold any extreme attitude toward authority (neither positive nor negative). Additionally, it was also found that 90% of the students reported that by nature, they like to take orders and conform to rules and regulations placed by teachers (authoritarian personality). Other findings are as follows:

1. Second year high school students hold a more favorable attitude toward authority compared to the first year high school students
2. Students from lower income groups hold a more favorable attitude toward authority compared to the ones in the higher income bracket
3. Students who tend to have a strong authoritarian personality, i.e., more likely to conform, like to be told what to do or given orders, etc. hold a favorable attitude toward authority compared to those who scored lower on the authoritarian personality scale
4. Students who perceive that their teachers use recognition disciplining style hold a more favorable attitude toward authority
5. Students who perceive that their teachers use discussion disciplining style hold a more favorable attitude toward authority
6. Students who perceive that their teachers use aggression disciplining style hold a more favorable attitude toward authority
7. Students who perceive that their teachers use hinting disciplining style hold a less favorable attitude toward authority (negative or inverse correlation coefficient). In other words, the more teachers use hinting disciplining style, the more negative students’ attitude toward their authority.
8. Both male and female students hold a similar attitude toward authority.
9. Students’ perception of academic performance does not relate to their attitude toward authority. Students attitude toward authority is the same regardless their perception of how good they are academically.
10. Punishment Disciplining Style does not relate in any way to Attitude toward Authority – there is no significant relationship between these two variables.
11. Involvement Disciplining Style does not relate in any way to Attitude toward Authority – there is no significant relationship between these two variables.
Introduction

Students’ undesirable behavior is considered one of the most challenging issues to teachers in general and to new teachers in particular. Preventing undesirable behaviors is a difficult job for the teacher. When the teacher's efforts fail to stop the unaccepted behaviors in the classroom, he will be in need of corrective procedures to stop such behaviors. This is why the issue of how best to discipline students in classrooms is one of continuing interests and concerns to the community. Successful teaching requires applying control and discipline in the classroom in order to fulfill the effective teaching. Imposing control and discipline in the classroom are two skills that should be learned by all new teachers, and these are called: classroom management and classroom discipline. Although the two terms are connected but they are not similar, classroom management refers to the procedures and routine actions used by the teacher to maintain the classroom order and harmony, while classroom discipline refers to the procedure and strategies used by the teacher to deal with incorrect actions or misbehaviors conducted by the student. In order to create a productive classroom learning environment for students, there must be a set of planned ideas and goals for student management and discipline. With this, rules must be established, explained, and clearly posted. Daily routines then should be set, in order to create a structured and non-confusing environment. On-going misbehaviors should be addressed immediately, and possibly followed up in and out-of-class. Disciplining students is a very significant concern that needs to be given attention seriously. It is a sensitive matter, since disciplining students contributes and influence individual behavior. It plays an important role for teachers then to deal with the undesirable behavior of students, ensuring that they will be guided and be molded as a better person when they grow up as well as it serves as a means of preparing students to take their place in society as responsible citizens. This paper examines the Teachers’ Disciplining Styles and Students’ Attitude towards Authority.

Purpose of the Study

The study aims to:
1. Identify the disciplining styles of teachers as perceived by students.
2. Determine the type of attitude students hold toward authority.
3. Measure/ascertain the degree, direction, and significance of relationship between attitude toward authority and students’ perception toward teacher disciplining styles.
4. To compare attitude toward authority as a function of gender, parents’ monthly income, year level and perceived academic performance.

Statement of the Problem

This paper will allow us to determine the bigger picture why and how this problem had happen. To clearly understand the problem, this study will attempt to determine certain variables that will help to provide information regarding the existing problem with regards to misbehavior of students. The three important variables of this study are namely: Teachers disciplining styles, Authoritarian personality of students and Students’ attitude towards authority.

This paper sought to answer the following questions such as:
1. What are the disciplining styles of teachers perceived by students?
2. What are the attitude students holds towards authority
3. Is there a significant relationship between attitude toward authority and students’ perception toward teacher disciplining styles?
4. How does attitude toward authority differ as a function of gender, parents’ monthly income, year level and perceived academic performance?

*Conceptual Framework*

![Conceptual Framework Diagram]

Figure 1. Research Paradigm
Research Design

This is a correlation study which attempts to predict factors that affects student attitude towards authority. Correlation study is a quantitative method of research in which it has 2 or more quantitative variables from the same group of subjects, and its tries to determine if there is a relationship (or co-variation) between the 2 variables (a similarity between them, not a difference between their means).

Respondents of the Study

Population

The research study was conducted to high school students of Darasamutr School, Chon Buri Sriracha. Darasamutr is one of the Thai schools here in Sriracha. The school has a population of 5,000 students from kindergarten to mathayom. Each level had eight sections and more or less 40 students in each class. There were six levels in high school starting from mathayom 7 to mathayom 12 or from first year to sixth year. The population of high school students all in all is approximately 1,920 students.

Sample

The study had used the convenience sampling method among high school students where respondents were selected on the basis of their availability and willingness to represent in part or in the whole of the population. Convenient sampling is a sample where the participants are selected, in part or in whole, at the convenience of the researcher. The researcher made no attempt, or only a limited attempt, to ensure that this sample is an accurate representation of some larger group or population. Therefore using this method, the researcher was able to choose selected levels (first year and second year students or mathayom 7 to 8) respectively for the research study. These levels had the most difficult time in adopting such new environment that’s why the researcher chosen to study this level. The total population of these two levels was 900.

Research Instrument

The tool that was used in this research was called attitude to authority scale, authoritarian personality scale and discipline strategies scale by JOHN J. RAY AND JENNIFER M. JONES (The Journal of Social Psychology, 1983, 119, 199-203). The questionnaire was divided into four major parts namely; the first part of the questionnaire covered the personal information of the respondents which includes gender, parents’ monthly income, year level and perceived academic performance. The second part of the questionnaire covered the student’s attitude toward authority of the teachers. The third part of the questionnaire covered the authoritarian personality of students and the last part of the questionnaire covered the discipline strategies perceived by students. To respond to these discipline strategies, and attitude towards authority items, students need to check one scale that indicates in every item which tells how frequently the teacher acted as described in the statement when trying to deal with misbehavior. The response alternatives provided are coded 5-1 respectively: (5) strongly agree, (4) agree, (3) neither agree or neither disagree, (2) strongly disagree, and (1) disagree. Whereas the response alternatives for authoritarian personality items are coded 2-1 respectively: (2) yes, and (1) no. The questions were translated into Thai language by a bilingual expert taking into consideration that the items retained their essential meaning and that the translation was
easily understood. The final questionnaire was encoded into Thai and English by another bilingual individual.

**Data Collection Procedures**

The researcher had passed a formal letter of request to the school director of Darasamutr School signed by the dean of the graduate school, St. Theresa International College. After the permission was granted, the researcher had requested the classroom advisers to assist in the administration of the questionnaire.

**Data analysis**

The survey was conducted in cooperation with some requested English subject teachers to ensure smooth distribution and retrieval of the instruments. All the data obtained from the questionnaire were done using the Statistical Package for Social Sciences (SPSS) software data file and tests of hypothesis was set at 0.05 levels. The data had been analyzed by the following statistical methods using the SPSS (Version 9.0) program:

1. **Descriptive statistics** – It describes the attitude of students toward authority, their authoritarian personality as well as their perception of their teachers’ disciplining styles.
2. **Inferential statistics** – this tool was used to find out the predictors of students attitude toward authority.
3. **Median** – this tool was used to analyze the perceived academic performance of students.
4. **Mean and Standard Deviation** – were used to analyzed attitude toward authority, authoritarian personality of students, and the six disciplining styles perceived by students.
5. **Cronbach’s Alpha** – It was used to measure the reliability of the data collection tools namely: attitude toward authority scale, authoritarian personality scale and disciplining style scale.
6. **Stepwise Hierarchical Regression Analysis** - This tool was used to assess the relative importance of predictor variables in relation to the main dependent variable (or the criterion), namely, attitude toward authority.

**Summary of Findings**

The broad pattern of results indicates that the attitude of students hold towards authority with a grand mean of 3.45 (on a 5-point scale) with a standard deviation of .48 indicates a fairly neutral/moderate attitude. In other words, students hold neither negative (unfavorable) nor positive (favorable) attitudes toward authority (i.e., the teacher). On the other hand, the study also revealed that students on the whole tend to have a strong tendency toward authoritarian personality as indicated in the grand mean value of 1.68 (on a 2-point scale) with a standard deviation of .24. This means that students tend to submit to authority, display conformity, prefer taking orders from their teachers, and seek stability and structure in their social environment. This is further supported by the information obtained from the frequency table that reveals that 90% of the students who took part in the study reported and obtained a mean score of 1.5 and above (on a 2-point scale) on the authoritarian personality scale. This study also reported and showed that
from the six disciplining styles perceived to be used by teachers as reported by students revealed a sequence from the most common disciplining styles to the least common disciplining styles. However, the grand mean values also reveal the fact that students’ perception of all the six disciplining styles is fairly moderate (neither high nor low) - this is reflected in the Grand Mean values that range from 3.40 to 3.70, on a 5-point scale. As the investigation goes, it was found out and indicated that some of the predictors tend to have a significant relationship to attitude toward authority (as reflected in Model 7 of the coefficients table). These are: year level and parents’ monthly income, authoritarian personality, recognition, discussion, aggression and hinting disciplining style. Lastly, it was indicated that there were excluded variables from the regression equation as the do not significantly predict attitude toward authority. They are: gender, perceived academic performance, punishment and involvement disciplining style.

Conclusions

As a summary of the above findings, the following conclusions were drawn:

The results and findings of the study reveal that students hold a neutral attitude toward authority – in other words, they do not hold any extreme attitude toward authority (neither positive nor negative). Additionally, it was also found that 90% of the students reported that by nature, they like to take orders and conform to rules and regulations placed by teachers (authoritarian personality). Whereas, the perception of students’ to the six disciplining styles is fairly moderate. Furthermore, it was also found that there is a significant relationship between attitudes towards authority to the following variables: year level, parents’ monthly income, authoritarian personality of students, recognition, discussion, aggression, and hinting disciplining styles while there is no significant relationship to the excluded variables namely: gender, perceived academic performance, punishment and involvement disciplining styles.

Recommendations

On the bases of the findings and conclusions, the following recommendations were cited:

1. **Educational institution** - Teacher-student activity in school should be encouraged to promote an intact or a harmonious relationship. Encouraging schools to build and support students in a way that they will feel more guided rather than neglected.

2. **Administration** - Promote better and improved discipline tactics and implement new rules considering the result and findings of the study.

3. **Teachers** - Classroom or advisory teachers should need to work harder to foster quality relationships with difficult students, undergo more trainings and seminars to gain new tactics and methods, develop their teaching and disciplining skills, and they need to obtain a plan for a better future.

4. **Parents** – Family communication and parent involvement in school should be enhanced and encourage so that proper guidance and assessment to their children will be monitored and guided.
5. **Students** – Involved themselves in school activities and be more active in classroom participation.

6. **Further studies** - Supplementary research study in this field is encouraged to find more relevant studies that will maximize learning outcomes and minimize classroom behaviors.

**Limitations**

The content of this study was centered on the Teachers’ Disciplining Styles and Students’ Attitude towards Authority. The following areas involved are: attitude towards authority, student authoritarian personality, demographic characteristics, and discipline strategies used by the teacher. This study was confined to the conduct of a self-made questionnaire and was administered to eight hundred one (801) ranging from first year to second year high school students’ in Darasamutr School, Sri Racha, Chonburi, Thailand, School Year-2010. The questionnaire was limited to these variables: attitude towards authority, demographic characteristics (gender, year level, parents’ monthly income and perceived academic performance), students’ authoritarian personality and the six disciplining styles (aggression, punishment, recognition, involvement, discussion and hinting) used by the teacher. It was translated into Thai language taking into consideration that the items retained their essential meaning and that the translation was easily understood.

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A project in Lifelong Learning: studying for an MA-by-research after retirement

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ABSTRACT

Theme: The research theme was a transdisciplinary, open-minded, open-ended enquiry into a phenomenon (the building of houses ahead of retirement by Thai-wife + Western-husband in the wife’s girlhood village) that had been noticed. This research contrasts with the specialist, mono-disciplinary, closely-controlled research projects that dominate research training for pre-career and mid-career Masters and PhD students today.

Background: This highly-original, wide-ranging research (highly-original both in topic and in methodology) was undertaken by a 73-year-old retired engineer, for an MA-by-research in Social Development in 2006/7 at Khon Kaen University (KKU), and is continuing towards a PhD.

It is part of this Graduate Student’s intellectual recreation (a major factor in the ‘well-being’ of the retired). The paper reports on the MA study, “The Return of the Village Daughters” from the West to their girlhood villages, as those villages will then be, after the coming collapse of Thailand’s manufacture-for-export.

Objectives: (1) To ascertain that significant numbers of Thai middle-class village daughters (presently living in the West) were intending to retire from the West to their girlhood villages (usually with a supportive Western husband in tow) and to enquire of them what preparations they were making, and what were their expectations.

(2) To consider the villages that these “Westernised Daughters” would be retiring to as those villages would then be, after the villages have gained “economic refugees” (often middle-class) from a depressed Eastern Seaboard and Bangkok during the coming times of energy-contraction and de-industrialisation.

(3) To consider the potential for a significant strengthening of the villages’ social capital (as well as human and monetary capital) from the above ‘inward migrations’ (reducing the Bangkok population to a quarter and strengthening village populations by a quarter).

Methodology: Wide reading, and a course in ‘Futures Studies’, plus worldwide virtual interviews via the Internet, and a few face-to-face interviews. A method of hunting down ‘key informants’ by using forums in the new ‘blogsphere’ was invented to identify ‘data sources’ and to pursue ‘data collection’.

Findings: A feasible scenario can be constructed that villages will gain in well-being in coming times.

For forty years, the villages have been being bled of their brightest and best young people.

When this stops, the villages will be able to develop their own middle class.
The present dominance of Bangkok elites and middle class over rural populations may well be challenged successfully.

**Conclusion:** The villages of Thailand may be strengthened by inward migration and acquire a substantial middle class. The consequent effects on Thailand’s social (economic, political, and cultural) development may be profound.

**Recommendation:** Today’s students, at all levels, but especially young teachers in Isaan universities, should be encouraged to consider and refine their images of their futures in Isaan, as Isaan will then be.

**Key words:** Foresight, anticipation, Futures Studies, Thailand, reverse migration, Isaan, villages, internet forums.

**Introduction**

As stated in the title, this paper is a report of a period of studying. The topic that was studied, the objectives, the methodology, the findings, the conclusions and the recommendation are given in the Abstract above. The actual research is described in full in the MA thesis (Allinson 2007a) and is summarized in an article published in the Journal of Mekong Societies (Allinson 2007b), both of which are posted on the author’s website where the interested reader can peruse them.

So this paper will concentrate on the author’s reflections on the experience of undertaking this Lifelong Learning project. It will give a chronological account of the study experience, with the later reflections being reported at the appropriate points.

**The genesis of the project**

Two streams of thought came together to result in the author approaching the Faculty of Humanities and Social Sciences at Khon Kaen University and expressing the wish to embark on an MA-by-research on ‘The Return of the Village Daughters’. The first stream of thought arose whilst the author was waiting for his wife to purchase some construction materials for a house-extension that they were having built. He wondered what proportion of the merchant’s turnover came from *mia farang* customers, and how this would increase in the future. Generalising on that, he wondered what proportion of the *Changwat Udon Thani* economy was due to cross-cultural marriage and noted that this could make an interesting research topic.

The second stream of thought originated in a chance meeting with a couple who were shopping in the main street of *Ban Non Sa-at, Amphoe Non Sa-at, Changwat Udon Thani*. They were visiting their holiday house in a nearby village where the (Thai) wife had spent her girlhood. They visited each year from Germany, where the (German) husband was an Ophthalmic Surgeon and his wife managed an optical-laboratory business. They were looking forward to retiring to the village in about ten years time. Driving home, the thought struck the author that the wife was a woman of clear ability, to whom the clerical staff in the Amphoe Office would not be supercilious, in the way that he had observed that morning in the reception given by those staff to village women. Idly constructing a mental scenario as he drove, he imagined (since he had at one time been involved in local
politics in Britain) a local political party in Isaan being keen to recruit a woman of such calibre, putting her forward as a candidate for election, and her subsequent rise through the political ranks. “Who knows: maybe I have met Thailand’s future first woman Prime Minister”, he mused.

So, when the author started getting a bit bored in retirement and feeling the need for some intellectual recreation beyond the walls of his den, the MA-by-research was born.

The relevant reflection is that retirees who wish to be research scholars will want to do only research which interests them, and will probably approach the University with their topic (or at least a definite area of a field) already decided. It will then be up to the University to consider whether it is convenient for it to match itself to the prospective student (and not vice versa, as in the case of pre-career and mid-career students).

The writing of the research proposal

A standard 3-chapter format for a Proposal Document was imposed. Chapter 1 was Introduction and had sections for Background and Significance of the Study, Objectives of the Study, Scope of the Study, and Benefits Expected from the Study. Chapter 2 was Review of Literature. Chapter 3 was Research Methodology. There was tension over the Objectives and the Scope. Apparently with an eye to the existence of ongoing work on Thai-farang marriage and consequent literature, the supervisor wanted presently-present farang husbands included in the study, whereas the researcher stood firm on excluding them as their wives have not had experiential learning in the West and do not have the ‘building blocks of power’ that he foresaw being possessed by the retiree returners. The researcher was quite happy to foray into a field that had not been explored at all and for which there was therefore no existing literature to review.

In retrospect, such tension is not surprising. It is likely that each will want his own way when the supervisor is a 60-year-old Dean and the researcher is a 72-year-old retired Operations and Maintenance Engineer who happens also to have taught in university-level institutions in several countries up to Principal Lecturer level, and who has served in Teacher Associations and on Governing Bodies of universities and similar institutions. The result of the tension was that the Scope of the Study remained limited to couple in which the mia farang has spent many years in the West, and the Review of Literature was expanded to encompass ‘any writings that had bearing on the subject’. That does not mean that the Review of Literature was simply padded. Investigating the previously-unexplored does mean ranging out into ancillary and auxiliary areas to find influences that will impinge.

Futures Studies

It was twenty years since the researcher had had cause to be involved with Futures Studies. Realising that the study was going to involve imagining the ways in which geopolitical trends and emerging issues will affect Thailand and its villages, an internet search was made and some books ordered so that the researcher could bring himself up to date on Future Studies. A 3-credit undergraduate course in Futures Studies, conducted by one of the leading modern gurus of the subject, Professor Jim Dator, was found to be available over the internet from the University of Hawaii. It fitted very neatly to take this course during the three months that the supervisor was away in the USA in the summer
term. Being of the same age and having much in common, rapport was soon established between Jim Dator and the researcher, though they have never met. The course proved invaluable, both in broadening the vision of the researcher and in helping him to focus on the Isaan village. Module 1 required submission of a 500-word essay on “What my community will look like in 30-years time”. Effectively this meant thinking through the scenario of the villages as the villages will then be, when these mia farang are migrating back to them. From there onwards, the study for the MA thesis was largely a matter of testing that scenario for feasibility, alongside enquiring of future retiree ‘village daughters’ about their perceptions of what they would do in retirement. The latter enquiry proved unsuccessful and was eliminated as an objective, with enquiries being limited to their preparations for retirement.

On reflection, the main scholastic gain was that the researcher came to realize that global economics were at a ‘tipping point’, with mankind passing the mid-point of its one and only period of extraction of fuels and ores from below the surface of Earth. This realization came when challenged to write an essay identifying an emerging issue. The author proffered “The Global Mine is in Decline”. The main philosophical gain was that the researcher extended the time period of his awareness, both forward and backwards, by having to think ahead and to check behind for historical parallels.

**Generalisation opinions emerging from this project in Lifelong Learning**

(1) An introduction to Futures Studies should be part of every student’s liberal education.
(2) Academia has erred by over-specialisation. Mono-disciplinary depth needs to be balanced by philosophical width and the resulting recognition of interconnections and feedbacks between matters that are presently being treated as separate entities in the physical or social sciences or the technologies. Many of the world’s problems, from financial crisis to global warming, have their roots in this.
(3) The ‘Return of the Village Daughters from the West’ will be only one facet of major inward migration to the Isaan villages.
(4) Isaan, which is already the region of Thailand with the highest score on Thailand’s Human Security Index, is poised to demonstrate the achievement of well-being at individual, household, and community levels during the imminent times of great change.
(5) Worldwide, the 21st century is going to be, and has started to be, ‘The Century of the Return to the Rural’.

**References**


Creating culturally responsive classrooms: The professional knowledge landscape of ethnic minority teachers’ cross-cultural experience in Hong Kong schools

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ABSTRACT

Many Hong Kong schools are concerned with the growing number of enrolment of ethnic minority students. This article examines ethnic minority teachers’ cross-cultural experience and their view of the diverse needs of ethnic minority students and how these needs were fulfilled. Qualitative data were collected from unstructured interviews, where the views of fifteen teachers of Pakistani, Indian, Canadian, Pilipino, from three primary and three secondary schools, were explored. This finding was illuminated by the interview study, showing that the diverse learning needs of ethnic minority students and their classroom behavior were culturally different from the majority of Hong Kong Chinese students. To manage the classroom diversity and promote cultural responsiveness, the teachers struggle for conceptualizing a new rationale for cultural responsiveness to diversity, developing a sense of inter-cultural sensitivity and promoting cultural responsiveness to diversity.

This paper argues that like students, teachers simultaneously engage in a cross-culture process through which they learn the culture of ethnic minority students, re-learn the culture of their own and re-think about the relevant rationale underlying cultural responsiveness. For ethnic minority group of school practitioners, there was a need to give them hope as a way to get them motivated to learn, face new challenges and explore the new opportunities. At last, the implication of the creation of a culturally responsive classroom will be given.

Keywords: Ethnic minority, Culturally responsiveness, Cross-cultural experience, Cultural diversity
West-Central Thai Students Interest in Science Teacher Career

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ABSTRACT

There is an international concern in science teacher shortage. Thailand has been facing a serious problem of insufficient science teachers both in quantity and quality. This study is part of an institutional research done by Teacher Education Department staff to determine readiness for and needs of an additional science teacher preparation program. This study examined how Thai students interest in science teacher career. A Science Teaching Career Interest Survey (STCIS) was developed and administered to 543 twelfth grade students in six provinces located in the west-central area of Thailand. The data was collected during November 2009 to January 2010. The results showed that more than half of students were interested in a science teaching career. Among science subjects; physics, chemistry and biology, the students showed more interest in biology than chemistry and physics, respectively. More factors concerning career interest are discussed.

Keywords: interest, science teacher career
Lesson study: An innovation for Teacher Professional Development in Thailand

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ABSTRACT

This study was aimed to investigate the effects of Lesson Study implementation on a particular group of Thai language teachers and to identify/determine factors attributed to the success of this implementation on Thai language teachers’ professional development.

There were four phases carried out in this study: 1) conducting a contextual study and its feasibility; 2) introducing Lesson Study into the school context 3) stimulating teachers’ engagement in the Lesson Study process; and 4) promoting teachers’ initiation in collaborative and participatory practices in the Lesson Study process. The data were collected by means of participatory observation and field note taking, in-depth interview, audio and video tape recording, questionnaire administration and documentary study. Protocol analysis and analytic description were used for data analyses.

The findings of this study revealed that the Lesson Study implemented in this particular school context made changes in teachers’ beliefs on their own teaching and learning management and their roles in teaching practices, including their attitude towards the students.

The success found in this study indicated that the Lesson Study implemented as an innovation for teacher professional development helped make some changes as mentioned depending upon the following factors: the school administrative organization’s support; the school principal’s support; the school personnel own participatory collaboration without outside specialists; teachers’ and students’ awareness on their own changes; confidence that lesson study is an opportunity for them to develop their profession, experiences of participating teachers in collaboratively working through the Lesson Study process, and the learning management approach.

Keywords: Innovation, Lesson study, Teacher Professional Development

Introduction

Lesson Study is an innovation as a major method in professional development in Japan. It occurred more than one hundred years ago. It was accepted throughout the time as a technique leading to the better and sustainable teaching (Lewis and Berry, 2006). In addition, it was a guideline of Teacher-led instructional improvement. The teacher was a motivator in teaching improvement by themselves without waiting from the expert outsider experts. For major objective, it was the Student-focused. Therefore, this guideline was very useful for the teacher’s instruction whether in content, teaching technique, or student’s learning (Lewis, 2002; Lewis and Berry, 2006; Shimizu, 2006; Isoda, 2006; Wang, 2006).
The Lesson Study Innovation was dissemination from Japan to schools in the United States of America as the first country in 1999. It was rapid growth until now. In 2007, there were 13 countries in Asia Pacific Cooperation adopted the teaching professional development in their own countries. For Thailand, the guideline of Lesson Study was administered in the development since 2002 initiated by Maitree Inprasitha (2003) by piloting the teacher training project of Faculty of Education, Khon Kaen University, until 2009, there were 24 schools used the Lesson Study and Open Approach in teaching professional development.

Since the Lesson Study Innovation was accepted in many countries in that it was valuable for teachers because it could make change in teachers and students. As a result, it was considered to be very appropriate with Thailand because in recent situation the teacher needed to improve their own teaching in order to affect the students’ learning reform. Consequently, the application of Lesson Study in teaching professional development of Thailand, would be useful for teacher reform.

So, this article would like to present overall lesson study innovation including: definition, background, process, and factor which would help this innovation to be successful in school so that those who were interested in applying the innovation for teacher reform in organization, would be able to use it with comprehension clearly and correctly according to technique and objective of the innovation.

**Definition of Lesson Study**

The word “Lesson Study” was defined by Center for Research in Mathematics Education, Khon Kaen University, in order to replace an English Term “Lesson Study,” by replacing the word “jugyokenkyu,” in Japanese Language. For the word “jugyokenkyu,” consisted of 2 words “jugyo” meant the classroom, and “kenkyu,” which referred to study or conducting research (Yoshida, 2004). According to the letter, therefore, lesson study referred to “the study” or “classroom research.” But, the meaning based on real Japanese Culture, when teachers wanted to use lesson study innovation, they would participate in well developed process including: discussion of Lessons which they already planned and observed teaching together, called “kenkyujugyo” reversing the word “jugyokenkyu.” It could be translated that “study or research the lesson” Specifically, in Japanese meaning “lesson” had specific meaning as “The object of one’s study.” The lesson study or classroom study referred to the “study,” according to step of implementation in attempting to accomplish the research objective chosen to work together by every teacher (such as to comprehend how to do for enhancing the students in being able to learn freely).

**Background of Lesson Study**

For the background or history of lesson study, could be classified into historical background in 2 countries including: historical background in Japan as an origin of the lesson study, and historical background of lesson study in Thailand as the country starting to use lesson study since 2002.

**Background of Lesson Study in Japan**

Yoshida (2005) defined the lesson study as intelligence or wisdom occurring from teaching of Confucianism doctrine. In addition, he cited an example of teaching from this doctrine that “seeing something only once, better than listening for one hundred times.” Therefore, background of lesson study could be traced back to the early 19th century.
Although the activity as one part of professional development on school teachers in Japan which all of them in school collaborating in order to achieve objective of whole school research agreed by all of them. It was a newer activity starting from 1960. But, the strategy in combining kaiakenshu and jugyokenkyu together was begun from the middle of 1960 (Yoshida, 2004). Ten years later, Japanese government knew the value of kaiakenshu as well as encouraged school to participate in this activity. Furthermore, kaiakenshu was still existed until now. In recently, there were many Primary Schools and Secondary Schools implemented “kaiakenshu,” (Nakatome, 1984; Yoshida, 2005) in which lesson study was a pattern of kaiakenshu.

The lesson study in Japan had a long historical background. Its major role was in transferring the teaching model from the former one as Traditional teaching as telling to Student-centered approach to learning (Heibert et al., 2003 cited in Yoshida, 2005). The Japanese Teachers recognized that the lesson study helped in developing the teaching and learning in class obviously. Many Primary Schools and Secondary Schools reported that the lesson study was one of guidelines in professional learning which could help the teachers to have professional growth in their own career.

Historical Background of Lesson Study in Thailand

Maitree Inprasitha (2006) stated the background of lesson study in Thailand concluding that the historical background of lesson study in Thailand staring at Faculty of Education, Khon Kaen University, its development was aligned with development of Open Approach. Assistant Professor Dr. Maitree Inprasitha administered the process of lesson study in the project enhancing self-studying with research grant from Khon Kaen University in 2002. The objective of that project was to study the changes in worldview of 15 internship students in Mathematics Education, Faculty of Education, Khon Kaen University, participated in the project. The students taught by the internship group throughout the first semester of 2002 school year, were surveyed their opinion.

In the same year, Maitree Inprasitha (2006) implemented the research project titled “Learning Reform in Mathematics in Schools by focusing on Mathematical Process,” supported by the Office of National Research Commission. In the project, 2 schools participated in: Secondary School ---Kokesee-pittayasan School, and Primary School—Suansanook Municipal, Muang District, Khon Kaen Province.

Later on, in 2003, after the establishment of Center for Research in Mathematics Education: CRME, the development and advertisement in lesson study was responsible by the center. In that year, Faculty of Education, by collaboration between Center for Research in Mathematics Education, and PLAN Organization of Thailand, launched the project “Development of Learning Plan based on guideline of National Educational Reform Act 2001 in each major learning substance by Lesson Study,” aiming for development of in-service teachers in the Office of Khon Kaen Educational Service Area 5, Mathematics Education Learning Substance, and Social Studies, Religion, and Culture Learning Substance, 50 teachers each learning substance, so that they could be able to develop the lesson plan and use in their own class.

In 2006, Faculty of Education, Khon Kaen University, on behalf of the former Dean (Associate Professor Dr. Suladda Loipha) allowed the Center for Teaching Professional Development and Educational Personnel to collaborate with PLAN Organization of Thailand, implemented the project for developing in-service teachers in the Office of Mahasarakam Educational Service Area 1, and 2, in Mathematics, Science,
Thai Language, and Social Studies, Religion, and Culture Learning Substances, by using model of lesson study the same as in 2003.

In the same year, the Center for Research in Mathematics Education, participated in pilot project of pilot school for growing wisdom as a joint project of the Office of Primary School, and the Office of Administration and Development of Body of Knowledge for school reform of the whole system by focusing on teachers for 2 pilot schools including: Chumchonbanchonnabot School, Chonabot District, and Koo-kampiattayasan School, Samsung District, Khon Kaen Province. The duration of project implementation was 3 years (2006-2008). For the first year, development of open knowledge management plan in Mathematics was emphasized. The teachers and researchers from Center for Mathematics Education, school coordinators, and Master Degree Students participating in research by using both schools as a basis for research collaborating in creating the lesson plan very Sunday. Then, the school coordinators, researchers from Center for Research in Mathematics Education, and Master Degree Students participating in research, 5 persons each school, observed classroom every period. The reflection was performed every Wednesday for Chumchonbanchonnabot School, and every Thursday for Koo-kam-pittayasan School.

The lesson study became to be better known in Thailand when the Center for Research in Mathematics Education, Khon Kaen University, was assigned from APEC to collaborate with Japan in organizing seminar titled “Collaborative Study on Innovation for Teaching and Learning Mathematics in Different Cultures among the APEC Member Economies, 3 times continuously 3 years. For the first one, implemented during 14-17th June 2006. For the third one, it was held during 25-29th August 2008 at Khon Kaen Province. There were different countries both of APEC members and Non APEC members, total of 18 countries including: China, Chile, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Thailand, the United States of America, Brunei-karas-salam, Australia, Africa, Kambodia, Lao, England, and Vietnam.

Later on, in 2009, the Center for Research in Mathematics Education, Faculty of Education, Khon Kaen University, was appointed by the Office of Higher Education Commission, collaborated with the Office of Primary Education Commission, extended the findings from application of lesson study based on network development with higher education institutes in the area including: Chiangmai University and Ubonrachatani University by performing in 12 provinces from North Region and Northeast Region in 19 schools. The extended findings was based on the policy of government for implementing to extend the findings in national level in 2010 further.

The Application of Lesson Study in School

For school appropriate with application of lesson study innovation, it consisted of every school in Thailand where the administrators were willing to obtain this innovation, and teachers wanted to use this innovation for developing their own knowledge management. However, in the case of small sized school, it would be useful when the innovation was used in school since every teacher could be able to participate in activity easier than large sized school. Besides, bringing lesson study to the school, in order that the innovation could work in school, the persons should be organization (such as University, the Office of Educational Service Area) rather than any researcher who would bring the innovation as one’s personal belonging.

Before applying lesson study into school, the teachers should participated in basic workshop regarding to every activity and various details during performing activity of
lesson study process as well as the innovation to be used in establishing knowledge management plan for basic understanding which might lead to good attitude towards participation in innovation (Narumol Inprasitha, 2009) for developing the lesson study group.

In setting the lesson study group in schools, at the beginning, only one group might be set up, from a learning substance, for learning at beginning. When the school was ready, the other learning substances would be extended. Each group should consist of at least 4 teachers in the same learning substance (Lewis, 2002). However, if the school wasn’t ready for it, the group setting of lesson study might include different learning substances.

Lesson Study Process

When lesson study was stated, the related academics often stated the step or process when the teachers entering lesson study. For the phase, it was differently called by each academic. Some of them called it as “Process,” some of them called it “Cycle,” and the others called it “Steps.”

Lewis (2002) proposed the Lesson Study’s Steps as follows:

Step 1: The establishment of lesson study by including the activities: finding the members, scheduling specific date, setting the meeting plan, and setting rule for group work.

Step 2: The study of classroom including 3 activities: making an agreement in guideline for conducting research, selecting the content, and selecting the unit to be performed.

Step 3: The planning for conducting research by studying the research plan, developing the lesson plan, and asking for counseling from the experts.

Step 4: The teaching and teaching observation, by collecting data as specifying.

Step 5: The discussion and analysis of research findings.

Step 6: The reflection and planning for next step.

Yoshida (2005) stated the Lesson Study Cycle that it was the major activities as different steps as follows:

The first step of lesson study process started by defining the research topic both in broad level and school level emphasizing the students’ desirable characteristics required by the teachers.

The teachers set up the group for developing lesson plan, it might be group in class level, or subject. Then, they selected the objective of lesson study based on research topic in school level but considered the class level or subject level.

The teacher group for inviting the outside experts to participate in working with teachers in group in order to improve understanding in content, suggest the approach in students’ learning, and support the group working.

The establishment of plan, each group selected topic from learning unit congruence with objective of lesson study, and selected the topic in that unit for research topic. The group members collaborated in implementing the lesson plan.

A group member used the plan for teaching while the other teachers in group (more than one person) and the other observers including the outside experts, observed the instruction. These observers collected data from students’ thinking and learning. The observers might consisted of the other teachers outside group, or teachers from other schools.

After finishing lesson study, the group members discussed the classroom during schedule arranging for discussion. Information from discussion was used for improving
the next class. Later on, the cycle of teaching, observing, discussing would be started again. The conclusions from discussions as the thing learned by teachers at the first duration of cycle would help the research to be implemented as desired guideline.

At the end of school year, the group of lesson study reflected the study and learning, and presented report of findings and effect from research. Specifically, in the issue of group objective and school research topic. There were 2 final aims of activity in the process: development of new approach in teaching and learning based on understanding in students’ thinking.

However, the use of lesson study innovation, the source of innovation came from and developed in Japan for more than 100 years. In addition, it was a complex innovation since it included Socio-cultural contexts. Entering into a school in Thailand with different socio-cultural contexts from Japanese Schools very much. So, it was necessary to adjust so that it would be appropriate with school context in Thailand whether it was the cultural working of administrators or teachers, and students’ learning behavior.

In this article, it presented the modified lesson study innovation with Thai context in which it was already used, and included the findings showing that the modified lesson study process could be able to help the teachers in reforming their own teaching (Narumol Inprasitha, 2009).

There were 5 steps of the above process:
Step 1: The teachers in lesson study group, collaborated in developing the knowledge management plan.
Step 2: The usage of knowledge management plan and classroom observation.
Step 3: The classroom reflection.
Step 4: The conclusions of teachers’ learning.
Step 5: The modification of knowledge management plan.
In each step consisted of following implementations:

Step 1: The teachers in lesson study group collaborated in developing the knowledge management plan for using in one semester to be completed during the closing of school, which might be 2-3 days. It should be under suggestions of outside experts (the researcher from university or supervisor). For activity in goal setting which was in Step 1 of lesson study process used by Japanese Teachers, it could be modified by the teachers’ emphasis on major school goals since it might be too complex activity. In creating the knowledge management plan, the teachers should be made appointment for implementation once a semester by doing in holiday or the end of semester since the teachers might not have time during the semester. The knowledge management plan should be constructed by teachers in lesson study group and outsider experts. The knowledge management plan should be the plan using innovation being congruence with school goals.

Step 2: The teachers in group selecting from their friends in group as the teachers using knowledge management plan whereas the other at least of one person observed classroom and recorded all incidences occurring in class. In classroom observation, the assigned teachers to use the plan, should use it according to guidelines which were agreed upon by the observer teachers, they had to observed based on the researchers’ guidelines. The most important thing was that: each time in using knowledge management plan, at least one teacher required to observe the class.

Step 3: The classroom reflection, the administrators and every school teacher collaborated in classroom reflect activity which was organized once a week after class in any day. For classroom reflect activity, it should be organized once a week after class in
any day scheduled together. The reflecting moderator should be director. This activity required every teacher to participate in reflection. The director had to control reflection to continue following collaborated agreement.

Step 4: The teachers’ learning conclusions, performed once a semester after the end of each semester, by teachers.

Step 5: The modification of knowledge management plan, was the adjustment in knowledge management plan and teaching again. It was the activity performing at the end of school year. The teachers used the knowledge management plan they used to administer it last school year, to be discussed in the advantage and disadvantage, and modified it for teaching again in next school year.

For writing report including knowledge management plan, students’ information, and reflected that what they had learned. During the first session, it wasn’t needed to performed since it might be too much burden for them. But, when school implemented activity in process of lesson study for a period of time, the director should encourage the teachers to write a report since it would be very useful for them because they could reflect their own learning as well as evidence and performance of their work in which they could use as professional utilization in future.

The process of lesson study could be shown by the following chart:

- Collaborate in developing knowledge management plan before the beginning of semester
- Use the knowledge management plan, and observe classroom as regular time table
- Reflect class every week
- Conclude the teachers' learning after the end of semester
- Modify the knowledge management plan at the beginning of semester
Figure 1: The Lesson Study Process Model was shown.

The details of activity in the lesson study process model of this research, could be shown in the following table:

<table>
<thead>
<tr>
<th>The administrators and every school teacher</th>
<th>Set the long term goal in developing the students</th>
<th>Beginning of school year</th>
<th>once/school year</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>The teachers in lesson study group</td>
<td>Develop the knowledge management plan</td>
<td>During the end of semester, before the beginning of new semester</td>
<td>once/semester</td>
<td>At beginning, there should be outsider experts for providing suggestions.</td>
</tr>
<tr>
<td>The teachers in lesson study group</td>
<td>Use the knowledge management plan, and observe class.</td>
<td>Specified date in timetable.</td>
<td>3 times a week</td>
<td></td>
</tr>
<tr>
<td>The administrator and every school teacher.</td>
<td>Reflect the class.</td>
<td>After class</td>
<td>Once a week</td>
<td></td>
</tr>
<tr>
<td>The administrator and every school teacher.</td>
<td><strong>Conclude the learning outcome.</strong></td>
<td>The end of semester</td>
<td>Once a semester</td>
<td></td>
</tr>
<tr>
<td>Teachers in the lesson study group</td>
<td>Modify the knowledge management plan.</td>
<td>During the end of semester, before the beginning of semester</td>
<td>Once at the beginning of school year</td>
<td>Start to perform in the second year.</td>
</tr>
</tbody>
</table>

Factors affecting success of lesson study innovation

According to the above, it could be viewed that the lesson study innovation was an innovation for professional development which was different from Thai traditional teaching professional development. It was often mostly used in short course training by outsider lecturers. For the lesson study innovation in long course training and implemented by teachers themselves, was the unfamiliar teaching professional development. As a result, teachers had to change their working culture, attitude, many kinds of belief. Therefore, many factors were required in bringing the lesson study innovation in school in order to be success.

Narumol Inprasitha (2009) stated that the success of lesson study innovation referred to the innovation that could be functioned in school until leading to changes in teachers and students. When the organization used this innovation, the following factors should be considered:

1. The support from control unit of school.
A factor that would support this innovation to be successful, was the work unit in higher level of school, including the Office of Educational Service Area, the Office of Primary Education Commission, as well as the Ministry of Education, should provide support in different aspects: the support for approach that this innovation was valuable, supporting by sending the experts in knowledge management to provide suggestions and support for working morale.

(2) The school administrator’s support

The lesson study innovation couldn’t be able to access the school unless the administrator’s support which could be performed by helping for setting up the lesson study group, scheduling time for teachers to collaborate in developing the lesson study and reflecting, scheduling time table for teachers so that they would have their time in observing the other teacher’s teaching, supporting for the media and tools of knowledge management, and encouraging their morale in participating different activities.

(3) The collaboration with outsider experts

The outsider experts referred to the scholars from the Office of Educational Service Area, instructor or researcher from university supporting for knowledge management which was very important in session the teacher starting to lesson study process. If there was no this factor, the teachers would not able to change themselves.

(4) The awareness of changes in students and teachers themselves

After the teachers used lesson study innovation for a period of time, they were aware that this innovation could help them to change, and there was the effect of teachers’ changes on students’ changes. So, they recognized the worth of innovation. They were confident in the innovation and continued participating in lesson study.

(5) The confidence that the lesson study was an opportunity of professional Development

The teachers who wanted their own professional development for promotion, and viewed this innovation as a guideline for helping them in obtaining guideline for conducting their dossier for promotion in which it would encourage them to be willing to participate in activity of lesson study process.

(6) The experience of working together of teachers participating in lesson study Process

The teachers’ experience on participating in activity of lesson study innovation, whether it was the creation of knowledge management, application of planning and classroom observation, as well as reflection. In working together, it would help teachers obtaining experience and viewing the value of experience occurring from lesson study innovation. As a result, teachers participated in lesson stud process, and supported this innovation to be existed in school successfully.

(7) The guidelines of knowledge management

The guideline of knowledge management was an important helping the teachers to have same destination in creating the knowledge management plan, classroom observation, and classroom reflection. Furthermore, the teachers were facilitated in
obtaining viewpoints of discussion during session in developing the knowledge management plan as well as classroom reflection. Consequently, the teachers recognized that knowledge management plan caused the students’ changes in which it could lead to the teachers’ viewed that the lesson study innovation was valuable, and finally existed in school successfully.

Conclusions
The lesson study innovation was a technique in teaching professional development being recognized that it could cause the teachers’ various changes especially in teaching. However, this innovation was complex since it included Socio-cultural contexts because it was from Japan as its owner for more than one hundred years until it was normal cultural working. Since schools in Thailand had very much different contexts socio-cultural contexts from Japanese contexts, would use this innovation. Therefore, it needed to be based on collaboration of every one in organization for modifying one’s cultural organization, thinking, belief, attitude in order to support this innovation for being existed in organization successfully.

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Administrator’s Transformational Leadership Affecting Core Curriculum Basic Education B.E. 2551 Management of the Curriculum Model Schools in Khon Kaen Province

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ABSTRACT

This research aimed to 1) study administrator’s transformational leadership of model school in Khon Kaen province where implemented Basic Education Core Curriculum B.E. 2551 to action, 2) study the relation between administrator’s transformational leadership and the management of Basic Education Core Curriculum B.E. 2551 in Khon Kaen province and 3) study administrator’s transformational leadership affecting the management of Basic Education Core Curriculum B.E. 2551 in Khon Kaen province. This mixed method research consisted of 2 periods of process. The first period was qualitative research with the format of multi-case studies. Target group was specifically chosen for being key data providers. So it consisted of administrators and teachers who had worked as administrative committee of 3 model schools in Khon Kaen province. Research instrument was interview form. Data was analyzed through method of content analysis. The second period was survey research. The Samples consists of 331 educational persons including 49 administrators and 282 teachers. The 282 teachers were chosen through the method of school proportional stratified sampling from totally 1,123 teachers. Interview form was still used as research instrument. Data was analyzed by using ready-to-use computer program for calculating statistic figures including percentage, mean, standard deviation, Pearson correlation coefficient and coefficient of multiple regression analysis using Enter method for reviewing significant variables. The usage of Stepwise method also was made for finding out the best method to create regression equation.

Research findings found that administrator of model school in Khon Kaen province had both overview and each aspects of transformational leadership at “high” level. Leadership of administrator which mostly performed as seen through mean score was idealized influence, following by inspirational motivation, individualized consideration and intellectual stimulation respectively. The relation between administrator’s transformational leadership and the management of Basic Education Core Curriculum B.E. 2551 of model school in Khon Kaen province (CURRI) was found the “high” level in optimistic matter. The result of analyzing multiple regression equation found the multiple correlation coefficients at 0.766. Coefficient of determination was found at 60.20. Coefficient of regression for leadership of change on each aspect which affected to management of Basic Education Core Curriculum B.E.2551 in model school in Khon Kaen province was mostly found at individualized consideration : IC, following by intellectual stimulation : IS and inspiration motivation : IM, respectively.

The regression equation could be created to the form of unstandardized and standardized score through the method of Stepwise as follows:

Regression equation in the form of Unstandardized Score:
CURRI = 1.497 + 0.263(IC)** + 0.238( IS)** + 0.156(IM)**

Regression equation in the form of Standardized Score:
Z = 0.339(Z4)** + 0.294( Z3)** + 0.185(Z2)**

Keywords: transformational leadership, management of Basic Education Core Curriculum B.E.2551
A Curriculum Assessment of Graduate Diploma Program of Teaching Profession, Faculty of Industrial Education, Rajamangala University of Technology Phra Nakhon

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ABSTRACT

The purposes to this research were to assessment the graduate Diploma Program of Teaching Profession at Rajamangala University of Technology Phra Nakhon, Faculty of Industrial Education of the curriculum used. Research population consisted of graduate students, diploma degree graduate, their superiors and instructors. Simple random sampling gave the sample size of 549 people were selected from purposive sampling. The research tools were a questionnaire and a focus group discussion recording form. Data analysis employed basic statistics of frequency, mean and percentage including content analysis for qualitative data.

The findings of this research were as follows: 1) Primary components of the curriculum were suitable at high level. 2) Course structure and content were suitable at high level. 3) Characteristics of lecturers were suitable at high level. 4) Instructional and evaluation activities were suitable at high level. 5) Factors contributing to the teaching of the course were also found suitable at high level. On the contrary, Journals related to inadequate service and problems of withdrawal teaching materials. However, the curriculum development should be updated to suit the needs of society and science is always developing.

Keywords: Curriculum Assessment, Program of Teaching Profession

Introduce

The curriculum assessment is an important process to ensure appropriateness of education, contributing to control and ensure the quality of education. Faculty of Industrial Education, Rajamangala University of Technology Phra Nakhon (RMUTP) is another one that offered a teaching certificate the graduate diploma program of teaching profession. The purpose is to produce graduates of higher-level Bachelor's degree with professional knowledge to provide high-quality teachers. Promotion and development of education for the benefit of both economic and social development of the country. Personnel with knowledge can be recognized by professional organizations in education. This program has been implemented since year 2549 to the present. To train the graduate diploma professional teachers are currently 446 students studying there are 403 people.

Duration of the graduate diploma program professional teachers has been economic development. But this course has not been evaluated or updated in any way. Whether the program structure contents was the course description, credits, and
management courses. Therefore, research program manager, so as to monitor and evaluate the graduate diploma program of teaching profession. In order to know the advantages defect problems such as an approach to improve programs to suit the needs of society and the findings to a part of quality assurance processes in education.

**Research Purpose**

The main purpose of the research is to assessment the graduate diploma program of teaching profession at Faculty of Industrial Education, Rajamangala University of Technology Phra Nakhon which is included specific purposes as followings:

1. To survey appropriate of the graduate diploma program of teaching profession
2. To assessment the graduate diploma program of teaching profession

**Research Methodology**

The assessment the graduate diploma program of teaching profession at Faculty of Industrial Education, RMUTP was performed by using questionnaire as research tool to survey graduate students, diploma degree graduate, their superiors and instructors perspectives. The numbers of sample were determined from Krejcie and Morgan table using multistage sampling technique. The survey results form 196 students, 205 graduate, 140 supervisor of graduate and 8 teachers were analyzed by descriptive statistical methods. These data of five aspects consisting of 1) Primary components of the curriculum 2) Course structure and content 3) Characteristics of lecturers 4) Instructional and evaluation activities 5) Factors contributing to the teaching of the course were used to analyze and compare in this paper.

**Results**

The research findings were as followings:

1. Results of analysis data from assessments
   1.1 Results of assessment of graduate students
   The findings of assessment the graduate diploma program of teaching profession at Faculty of Industrial Education, RMUTP, found that most of the respondents were females. Their ages were 30-34 years. For the issues assessment of the graduate diploma program of teaching profession were as follows: 1) primary components of the curriculum 2) characteristics of lecturers 3) instructional and evaluation activities and 4) factors contributing to the teaching of the course were suitable at high level and then the course structure and content was suitable at moderate level.

   1.2 Results of assessment of diploma degree graduate
   The findings of assessment the graduate diploma program of teaching profession at Faculty of Industrial Education, RMUTP, found that most of the respondents were females. Their ages were 25-29 years. For their make a living was 1-2 years. For the issues assessment of the graduate diploma program of teaching profession were as follows: 1) primary components of the curriculum 2) characteristics of lecturers 3) instructional and evaluation activities and 4) factors contributing to the teaching of the course were suitable at high level.

1.3 Results of assessment of superiors
The findings of assessment the graduate diploma program of teaching profession at Faculty of Industrial Education, RMUTP, found that most of act of diploma degree graduate were as follows: 1) characteristics of graduate 2) behavior of work and 3) knowledge of act were suitable at high level.

2. Results of focus group
   The assessment of the graduate diploma program of teaching profession at Faculty of Industrial Education, RMUTP should be improving and developing the curriculum in accordance with professional standards of teachers in the Teachers Council.

Conclusion

1. The majority agreed with the assessment primary components of the course to meet the core competencies of the Council specified. Because the criticism has been held before the course curriculum to state approval to open learning. And programs consistent with the needs of the student society at present are to bring knowledge to the work. Consistent concept of Wichai W. (2538: 47) stated that the program is important and essential to education at all levels including non-formal education. Education and other forms of due course to determine the direction of education in accordance with the requirements of social, economic, scientific and technological progress and other developing countries. And according to the research of Chorthip (2546: abstract) were evaluated in the context of the course objectives are clear of the language used. Meet the needs of social conditions and practices that can lead to real results.

2. The majority agreed with the course structure and content concern assessment of all units. Courses force Elective course contents and descriptions all May be because according to the knowledge and competencies of teacher that meets the criteria of the Guru conditions leading to work in schools. And is also consistent with research of Urai (2548: abstract) found that the structure subject to compliance with the aims of the curriculum and the needs of society at present organized contents of the course. Major holders or the content of the main idea of developing the curriculum taught to be flexible as possible.

3. The majority agreed with the assessment of characteristics of lecturers teaching in the Graduate Diploma. Those professional teachers who are knowledgeable in the subject they teach technical advisory service, planning and preparation of teaching as well. Accept the opinions of students. Is a good example in support of knowledge academic. Consistent with professional standards of teachers defined that Professional teacher must have professional practice activities regularly. Develop lesson plans to be able to effect the selection of lesson plans, update or create. Or provide instruction that can be used for teaching and learning activities for students of learning objectives. And according to the research and the Faculty of Commerce Walai (2547: abstract) found that characteristics of the teachers desired to transfer the technical knowledge to the students. Accepted the opinions of students and the teaching and learning activities that emphasize collaborative learning.

4. The majority of that assessment of instructional and evaluation activities teachers are taught by teaching specific approaches. The teaching methods that focus on the learners was study together and exchange knowledge. Use a variety of teaching
techniques. With materials that help students learn to be better and students can apply knowledge to real work. Consistent with the principles of teaching students is important to emphasize the focus on student participation in learning activities.

5. The majority of that assessment of the factors contributing to the teaching of the course. Number of students per class is sufficient conditions suitable for classroom teaching and learning materials for the teaching and learning. But books / journals available in the research are not sufficient to service community, not convenience. And according to the research and the Faculty of Commerce Walai (2547: abstract) found that factors contributing to learning are not sufficient to enable students will not study. If the content knowledge of the various courses were thus unable to exploit the knowledge of the occupation.

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Grade 10 Thai Students’ Analogy for Explaining Rate of Reaction

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ABSTRACT

The research aimed to examine students’ analogy for explaining rate of reaction during learning about rate of reaction by using analogy approach (Focus, Action, and Reflection (FAR) Guide). The target group consisted 47 grade 10 students’ in Paksuai Pittayakom School, Nongkhai province, Thailand, during in the second semester of the 2009 academic year. Research methodology regarded the interpretive paradigm. Students’ analogs for explaining 4 concepts about rate of reaction (including concentration, temperature, area, catalyst and inhibitor) was interpreted as protocol through students’ tasks, questionnaire about rate of reaction concepts, and interviewing. The findings revealed the interesting students’ analogs for explaining 4 concepts. These included driving car back home on the motor way, blowing up balloon by pumping, using pulley as labour-saving equipment, changing from letter to email, changing from riding bicycle to motorcycle, and changing from using stair to elevator. These analogs were clarified as representing of students’ constructing meaning about rate of reaction. The paper will discuss implications of these to provide enhancing students generating their scientific concepts based on local setting.

Keywords: Rate of Reaction, Analogy, FAR Guide

Introduction

The nature of Chemistry Subject is a useful one including abstract material needed to use imagination in thinking for combining the content with the students’ experience and daily life (Orgill and Bodner, 2004). According to the idea that everybody could learn with full potential if the student study based on their aptitude. When the students could completely develop their potentiality, they would bring their talent in themselves for developing themselves, their family, and society. In order to support the students studying with full potential, the teachers had to fully use scaffolding for their students by helping and advising from many techniques based on Bruner’s approach (1977). The teachers had to take their role as coaching, sequencing, reducing complexity, marking critical feature, and using visual tools. (Bruner, 1977: Krajcik, Czerniak and Berger, 2003)

For Analogy, it was like a comparison of similarity between 2 concepts. The compared things would be called “Target.” The critical features of both things were verbally compared, or using visual object. For teaching by analogy, it would enhance the students’ learning and thinking so that they could extend their knowledge as a process in building connection between their prior knowledge for explaining the new thing, information, and situation. (Glynn, 2007) The Analogy to be used in explaining might be as role playing, or Visual Imagery. (Glynn & Takahashi, 1998) There were many...
researchers developed the Analogy Instructional Model based on Focus-Action-Reflection (FAR) Guide as a guideline for teaching developed by Harrison and Coll (2008) dividing into 3 phases: 1) Focus, 2) Action, and 3) Reflection by using the students’ nearby things for explaining and conveying for meaning, and comparing the abstract object to be seen as more concrete by the students by using the things could be conveyed meaning as the desired goal so that the students would understand since the content of some topics including the imagination which couldn’t be really touched or seen. So, it was difficult for students to understand. For teaching by Analogy, it could be organized into instructional activity management with variety, flexibility, and system for serving the students’ need for learning. It could create the students’ motivation, interest, and pleasure, challenge as well as meaning, and explaining the content or complex structure to be easier since the things to be compared or Analog was more similar to the students’ familiarity for meaning, the students would have better understanding when they could participate in thinking or constructing the Analog by themselves. (Harrison and Coll; Orgill and Bodner, 2004)

Therefore, the researcher studied the effect of learning activity management titled “Grade 10 Thai Students’ Analogy for Rate of Reaction,” by using Analogy instruction based on FAR Guide since the Analogy Teaching could be applied in instructional activity with variety, flexibility, and system serving the students’ needs for learning, created their motivation, interest, pleasure, challenge as well as conveyed meaning, and explained complex content or structure to be easier. Besides, it could also extend the students’ knowledge, and help them to clearly and intensively understand the content titled “Rate of Reaction,” with the relevant concept with Science Concept.

Research Objectives

1. To study the effect of learning activity management in Chemistry Subject titled “Rate of Reaction,” by using Analogy Approach based on FAR Guide.
2. To the Analog constructed by students after obtaining the learning activity management in Chemistry Subject titled “Rate of Reaction,” by using Analog Approach based on FAR Guide.

Conceptual Framework
Research Methodology

For Qualitative Research, the interpretation the target group included 47 Matayomsuksa 4/1, Paksuay-pittayakom School, Nongkai Province. Data were collected during the second semester of 2009 school year. The research instrument using in this study included 8 Knowledge Management Plans by using Analog Approach based on FAR Guide, 16 hours. The instrument using for collecting data included: 1) the Survey of Concept, 2) the Interview Form, and 3) the Video Tape Record. The researcher would collect data before teaching, during teaching, and after teaching. The obtained data would be analyzed in descriptive form.

Research Findings and Discussions

For the survey of students’ pretest concept regarding to the effect of some kinds of substance on the rate of reaction, found that 6.38% of students had concept relevant to Science Concept by being able to explain that the putting substance would inhibit the substance in reacting as well as affect the reaction to have slower reaction. For the rest of students, 93.62%, had their concept not be relevant to Science Concept. It still be confused that the putting substance would increase the temperature since the high temperature would make faster reaction than low temperature. In addition, it couldn’t be explained that the putting some kinds of substance in reaction, how it would help the reaction to occur faster or slower.

According to the survey in pretest concept, the researcher constructed the knowledge management plan by using Analog Approach based on FAR Guide in order to use the learning activity management by choosing the Analog expecting that the students would be able to view as the abstract instead of imagination. Dumb-bell was chosen to be used in the learning instructional management as details in knowledge management as the following Table:

Table 1: Show the planning in knowledge management based on FAR Guide between Analog Dumb-bell and Target. The effect of some kinds of substance on the rate of reaction

| Focus | Concept | In the beginning of chemical substance reaction, it required the energy not less than energy causing the activated energy. When the reactant had equal energy with the substance causing the activated energy, the started substance would be in state of complex stimulant substance ( the substance in the state of dissolving former bond and going to create new bond. Then, the complex stimulant substance would become next product substance. In some cases, there was much energy causing activated energy, the reaction would be slowly occurred. So, the catalyze would help in stimulating the reaction to be faster by lowering the energy causing the activated energy since the reactant didn’t need a large amount of energy for becoming complex stimulant substance. So, the reaction would be quickly occurred. |
Students had difficulty in understanding the approach of stimulant substance and energy causing the activated energy. But, they would be able to compare with dumb-bell lifting.

The things to be compared, had to be consisted of approach that the tied dumb-bell was quite heavy. To lift it up, the large amount of energy also needed to be expended. But, if we divided or separated the dumb-bell, it would be like putting the catalyze for decreasing the energy causing the activated energy which was the dumb-bell weight. When the energy causing the activated energy lowered down, the easier and faster the chemical reaction would be occurred.

<table>
<thead>
<tr>
<th>Action</th>
<th>Similarity between Analog and Target</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Analog – Dumb-bell</td>
</tr>
<tr>
<td></td>
<td>Dumb-bell weight</td>
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<tr>
<td></td>
<td>Dumb-bell</td>
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<td>Dumb-bell lifting</td>
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<td>Dumb-bell dividing</td>
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<tr>
<td></td>
<td>Dumb-bell to be easier</td>
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<td></td>
<td>to be Lifted</td>
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</tbody>
</table>

When the learning activities were managed based on every phase of learning activity management, the researcher implemented the survey of the students’ posttest concept for investigating understanding as well as grouping the answers and analyzing the relevance with Science Concept, found that the students’ posttest concept in “The Effect of Some Kinds of Substance on the Students’ Rate of Chemical Reaction,” could be grouped into 3 groups for 61.09%, 6.38%, and 25.53% respectively. When each group of concept was analyzed the congruence with Science Concept, found that the students’ concept was relevant to Science Concept for 61.09%. The rest of students, 38.91%, didn’t have relevant concept to Science Concept.

The Analog findings constructed by the students after receiving learning activity management titled “The Effect of Some Kinds of Substance on Chemical Reaction Rate,” found that the Analog constructed by students being able to be used in explaining the concept in “The Effect of Some Kinds of Substance on Chemical Reaction Rate.” There were 6 kinds of Analog constructed by students as follows: 1) the home driving by using motor way comparing to putting catalyze into chemical reaction, it would decrease the energy causing the activated energy since using motor way would save more time in travelling by not being in traffic jam. As a result, the time spending in driving would be decreased, and arriving home quicker, 2) the balloon blowing by pumping instead of blowing by man. For blowing the bigger sized balloon, the large amount of energy needed to be expended. Consequently, the blower would be more tired. But, if the pump was used for helping in bowing the wind into balloon, there would be a larger number of
balloon as well as quicker without being tired, 3) the E-mail sending instead of letter, the communication would be quicker the same as putting catalyze helping in decreasing the energy causing the activated energy, 4) the use of pulley in pulling the cement tank instead of human, the force would be less expended, there would obtain more cement tanks, similar to quicker reaction, 5) the motor-cycle riding instead of bicycle-riding to school, the less energy would be expended, the school arrival would be quicker, and 6) the elevator using instead of stair taking. To go up the high building, a lot of energy needed to be expended. But, using elevator would help in arriving the destination quicker, similar to putting catalyze into chemical reaction.

Therefore, it could be concluded that the learning activity management by using Analog approach based on FAR Guide, would facilitate the students in understanding concept in “The Effect of Some Kinds of Substance on Chemical Reaction Rate,” by creating Analog and explaining that the catalyze would cause faster, but the inhibitor would cause slower chemical reaction, since the putting catalyze would lower down the and the inhibitor of reaction would increase the energy causing the activated energy. But, it didn’t affect the energy of reaction as the starting energy and product substance wouldn’t be changed. But, the inhibitor would increase the energy causing the activated energy. Considering the analysis of students’ pretest concept, found that there was congruence with Science Concept only 6.38%. But, for the posttest, found that the students had concept relevant to Science Concept for 61.09% with higher value. Furthermore, it was also found that the students’ pretest concept wasn’t relevant to Science Concept for 38.91% with lower value. It showed that the students improved their understanding in concept in “The Effect of Some Kinds of Substance on Chemical Reaction Rate,” in higher level as shown in the picture:

![Figure 1: Comparison of congruence between the students’ pretest and posttest concept with Science Concept in “The Effect of Some Kinds of Substance on Chemical Reaction Rate.”]
Bibliographies


Problems Needs and Trend Analysis of Thai Welding Occupational Standard

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ABSTRACT

The proposes of this research were to problems needs and trend Analysis of Thai welding occupational standard study the problems and needs of welding instructor for the occupational standard of welding in Thailand and to examine the trend of occupational standard of welding. The results of this study used to develop the appropriate occupational standard of welding for Thailand. The population of this study are welding instructors in Department of Metal Technology and Welding, Vocational Institutes of Thailand. The sample groups consisted of 48 welding instructors in Department of Metal Technology and Welding, Vocational Institutes of Thailand which selected by stratified sampling technique. Research methods were applied to collect quantitative data using interviews and questionnaires for participant. The process and product research tools were evaluated by seven experts revealing an Index of Item Objective Congruence (IOC) of 0.82. Statistical devices used in this study were means and standard deviation. The qualitative data will be grouped by using content analysis. The results of this study were as follows. 1) The problems of welding instructor for the occupational standard of welding were found that the standard in Thailand had a lot of standard. The standard in Thailand had no appropriate standard. 2) The need of welding instructor for the occupational standard of welding was found that they wanted to used International standard and wanted to used standard that every organize can accepted. For the trend of the occupational standard of welding was found that the standard should be easy to use and understand. The standard of plan and prepare for the work, welding materials and complete the work should be used in welding career standard of Thailand.

Key word: welding, standard occupation welding, Innovative Teaching Strategies

Introduction

Welding is a fabrication or sculptural process that joins materials, usually metals or thermoplastics, by causing coalescence. This is often done by melting the work pieces and adding a filler material to form a pool of molten material that cools to become a strong joint, with pressure sometimes used in conjunction with heat, or by itself, to produce the weld. This is in contrast with soldering and brazing, which involve melting a lower-melting-point material between the work pieces to form a bond between them, without melting the work pieces.
Many different energy sources can be used for welding, including a gas flame, an electric arc, a laser, an electron beam, friction, and ultrasound. While often an industrial process, welding can be done in many different environments, including open air, under water and in outer space. Regardless of location, however, welding remains dangerous, and precautions must be taken to avoid burns, electric shock, eye damage, poisonous fumes, and overexposure to ultraviolet light (Weman, 2003).

Until the end of the 19th century, the only welding process was forge welding, which blacksmiths had used for centuries to join metals by heating and pounding them. Arc welding and oxyfuel welding were among the first processes to develop late in the century, and resistance welding followed soon after. Welding technology advanced quickly during the early 20th century as World War I and World War II drove the demand for reliable and inexpensive joining methods. Following the wars, several modern welding techniques were developed, including manual methods like shielded metal arc welding, now one of the most popular welding methods, as well as semi-automatic and automatic processes such as gas metal arc welding, submerged arc welding, flux-cored arc welding and electroslag welding. Developments continued with the invention of laser beam welding and electron beam welding in the latter half of the century (Derry and Williams, 1993). Today, the science continues to advance. Robot welding is becoming more commonplace in industrial settings, and researchers continue to develop new welding methods and gain greater understanding of weld quality and properties.

However, Welding is very important for industrial, building, production, and manufacturing which can do everywhere even out of atmosphere. There are many developed countries provided their own occupational standard such as America and Australia. Then Thailand with unique conditions should have our own standard to make our welders can be accepted as much as other countries (Kasipar, 2006). Thailand also need Nation Benchmarking Vocational Qualification (TVQs) for improving our professional workers so occupational standard would make efficiency’s standard, understanding for welding career, include good attitude toward welding career. After the standard is set, we can provide non classroom degree by consider vocational qualifications and experience transferring.

This paper presented the result of a study of problems, needs and suggestion of welding instructor for the occupational standard of welding in Thailand and trend of occupational standard of welding using gas tungsten arc welding process (Goldstein, 1993). The participants are profession in welding careers all over Thailand. The questionnaires inquired their thought about problems, needs and suggestion toward welding occupational standard in Thailand. For trend of occupational standard of welding can focus on the process of welding which deviled into 3 parts as follow 1) standard of plan and prepare 2) standard of weld materials and 3) standard of complete the work.

**The objective of the study**

The objectives of research consist of:

1) To study the problems and needs of welding instructor for the occupational standard of weld in Thailand.

2) To examine the trend of the weld occupational standard.
Outcome of the study

1) The information and data will be used as a guideline to develop the appropriate weld occupational standard of Thailand.

Research Methodology

Population and Sample

Population of this study was composed of welding instructors who are welding instructors in the department of metal technology and welding, vocational institutes of Thailand.

Sampling group was composed of 48 welding instructors in the department of metal technology and welding, vocational institutes of Thailand by purposive sampling method.

Tools

This research was a survey research and the tool used in collecting the data was “questionnaire” which consisted of:


The process and product research tools were verified and tested by seven experts revealing an Index of Item Objective Congruence (IOC) of 0.82.

Data Collection

The research was conducted in the following steps:

1) Review the literature regarding the occupational standard of welding.
2) Developed a questionnaire.
3) Collect data using the questionnaire developed.
4) Analyses the data and conclude the results.

Data Analysis

Data analysis was done using SPSS/FW (Statistic Package for Social Science/for Windows) software. The part with selection items was analyzed using frequency and percentage. The part with five scales was analyzed using mean (X) and standard deviation (S.D.). The levels of agreement from respondents were as follows:

Average Score
4.00 – 5.00 means strongly agree
3.00 – 3.99 means slightly agree
2.00 – 2.99 means slightly disagree
1.00 – 1.99 means strongly disagree
Result of the study

1) The problems of the occupational standard of welding were found out that the participants had no skill for using the occupational standard. The standard in Thailand had a lot of standard. The standard in Thailand had no appropriate standard.

2) The need of the occupational standard of welding was found out that they wanted to used International standard and wanted to used standard that every organize can accepted.

3) The trend of the occupational standard of welding was found out that the standard should be easy to use and understand. For trend of welding career standard can summarize into 3 parts as follow a) standard of plan and prepare b) standard of weld materials and c) standard of complete the work.

a) Standard of plan and prepare consist of: Work requirements are identified from request/work orders or equivalent and clarified/confirmed with appropriate parties or by site inspection. Used occupational health and safety standards. Statutory requirements, relevant standards, codes of practice, manufacturers specifications. Enterprise procedures are identified, applied and monitored throughout the work procedure. Resources required to satisfy the work plan are identified, obtained and inspected for compliance with the job specifications. Relevant plans, drawings and text are selected and interpreted in accordance with the work plan. Correct size, type and quantity of materials /components are determined, obtained and inspected for compliance with the job specifications. Work is planned in detail including sequencing and prioritizing and considerations made, where appropriate, for the maintenance of plant security and capacity in accordance with system/site requirements. Co-ordination requirements, including requests for isolations where appropriate, are resolved with others. Potential hazards are identified and prevention and/or control measures are selected. Work area is prepared in accordance with work requirements and site procedures. The teams and individuals roles and responsibilities within the team are identified and assist in the required, assist in the-job training.

b) Standard of weld materials consist of: Materials for welding are prepared and aligned in accordance with the work plan and specifications. Distortion prevention measures are identified and applied in accordance with job requirements. Test runs are undertaken in accordance with the work plan and job requirements. Materials are welded using GTAW process to relevant standards (specify) in accordance with the work plan and specifications. Welds are cleaned using appropriate tools and techniques in accordance with the work plan. Welds are inspected visually and defects entities and repaired using appropriate.

c) Standard of complete the work consists of: Work is completed and appropriate personnel notified in accordance with site/enterprise requirements. Work area is cleared of waste, cleaned, restored and secured in accordance with site/enterprise procedures. Plant, tools and equipment are maintained and stored in accordance
Conclusion

This research was to study the problems and needs of welding instructor for the occupational standard of welding in Thailand and to examine the trend of occupational standard of welding. The results of this study show that the data and information of this study can used as a guideline to develop the appropriate occupational standard of welding for Thailand. This research was a survey research and the tool used in collecting the data was questionnaire which consisted of Part 1: Problems of welding instructor for the occupational standard of welding in Thailand. Part 2: Needs of welding instructor for the occupational standard of welding in Thailand. Part 3: suggestion for trend of weld occupational standard in Thailand. Other size, the benefit of this research was improve occupational standard, the professional workers, understanding for weld career and include good attitude toward weld career.

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References

Global Student Mobility: The experience of international students in Hong Kong, Singapore and Malaysia

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ABSTRACT

Global student mobility and the internationalisation of higher education is characterized by the movement of Asian students to North America, Europe and Australasia. Recently the global student mobility has featured the entry of many Asian providers including Hong Kong, Singapore and Malaysia. This growing international presence is attributed to policy settings in each country designed to promote the notion of “education hubs”.

This paper reports on qualitative structured interviews with over 60 international students studying in Hong Kong, Singapore and Malaysia. The students interviewed were from China, Italy, Iran, Iraq, Yemen, Indonesian, Myanmar, Germany, Thailand and Jordan and were studying a mix of postgraduate, undergraduate and pre-university studies.

The paper reports on the reasons for studying and motivations for an Asian destination and their experiences of the academic and social environments of their host countries. The paper documents the social and cultural challenges that students experience particularly in dealing in a multilingual environment where English is used as the language of instruction. The research also looks at the ambitions of the students and their future plans. The interviews also provide evidence of some of the strengths and challenges for providers in Hong Kong, Singapore and Malaysia in securing a position as leading providers of international education.

From the experience of students and interviews with some administrators, the paper also reports on the commonalities and differences associated with the development of “education hubs” in Hong Kong, Singapore and Malaysia.

Keywords: global student mobility, international students, foreign students, student experience
The Civil instructors’ Acception of the Office of the Vocational Education Commission (OVEC) to the Characteristics of the Civil Career in Thailand

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ABSTRACT

The purpose of this research was to investigate to study the civil instructors’ acception of the characteristics of the office of the vocational education commission (OVEC) to the characteristics of the civil career in Thailand. The results of this study use for develop the appropriate occupational standard of civil for Thailand. The population of this study is enterprise executives. The sample groups consisted of 102 from the civil instructors’ acception of the characteristics of the office of the vocational education commission (OVEC) in Thailand which selected by stratified sampling technique. Research methods were applied to collect quantitative data using interviews and questionnaires for participant. The process and product research tools were evaluated by seven experts revealing an Index of Item Objective Congruence (IOC) of 0.86. Statistical devices used in this study were means and standard deviation. The qualitative data will be grouped by using content analysis.

The study found that the highest expectations: The civil instructors’ accept. 1. Knowledge and especially skill: Knowledge or writing construction skill section is can read and write an industry standard score an average of $x = 4.82$. 2. Attitude: Personal Attitude section is Intelligent and endure score an average of $x = 4.74$ and 3. Knowledge and General basic skill: Information technology section is can use Computer program basic: window, word, excel etc. score an average of $x = 4.70$.

Keywords: Civil, standard occupation Civil

Introduction

Civil engineer is a professional engineering discipline that deals with the design, construction and maintenance of the physical and naturally built environment, including works such as bridges, roads, canals, dams and buildings[1,2]. Civil engineering is the oldest engineering discipline after military engineering, and it was defined to distinguish non-military engineering from military engineering [3]. It is traditionally broken into several sub-disciplines including environmental engineering, geotechnical engineering, structural engineering, transportation engineering, municipal or urban engineering, water resources engineering, materials engineering, coastal engineering, surveying, and construction engineering. Civil engineering takes place on all levels: in the public sector from municipal through to federal levels, and in the private sector from individual homeowners through to international companies. There is no one typical career path for
civil engineers. Most engineering graduates start with jobs of low responsibility, and as they prove their competence, they are given more and more responsible tasks, but within each subfield of civil engineering, and even within different segments of the market within each branch, the details of a career path can vary. In some fields and firms, entry-level engineers are put to work primarily monitoring construction in the field, serving as the "eyes and ears" of more senior design engineers; while in other areas, entry-level engineers end up performing the more routine tasks of analysis or design and interpretation. More senior engineers can move into doing more complex analysis or design work, or management of more complex design projects, or management of other engineers, or into specialized consulting, including forensic engineering.

However, civil engineers is very important for industrial, building, production, and economy which can do everywhere even out of atmosphere. There are many developed countries provided their own occupational standard such as America and Australia. Then Thailand with unique conditions should have our own standard to make our civil can be accepted as much as other countries [4]. Thailand also need Nation Benchmarking Vocational Qualification (TVQs) for improving our professional workers so occupational standard would make efficiency’s standard, understanding for civil career, include good attitude toward civil career. After the standard is set, we can provide non classroom degree by consider vocational qualifications and experience transferring.

This paper presented the result of the civil instructors’ expectations of the characteristics of the civil career. The participants are profession in civil careers all over Thailand. The questionnaires inquired their thought about expectations toward civil engineers.

**The objective of the study**

To study the civil instructors’ acceptance of the characteristics of the the office of the vocational education commission (OVEC) to the characteristics of the civil career in Thailand.

**Outcome of the study**

The information and data will be used as a guideline to develop the appropriate civil occupational standard of Thailand.

**Research Methodology**

**Population and Sample**

Population used in this study was composed of civil instructors who are civil instructors in the department of civil engineers, institutes of Thailand.

Sampling group was composed of 102 civil instructors in the department of civil engineers, institutes of Thailand by purposive sampling method.

**Tools**

This research was a survey research and the tool used in collecting the data was “questionnaire” which consisted of:

- **Part 1 : General information about respondents**
- **Part 2 : Knowledge and General basic skill**
  - General career
  - Information technology
Knowledge and especially skill

- Knowledge or write construction skill
- Knowledge in written form using (SHOP DRAWING) virtual reality (AS BUILT DRAWING)
- The estimated construction cost
- Technical approach and work construction.
- The material testing
- Analysis, Design and part of structure Behavior
- Management of construction
- Civil Law
- Building Systems
- Safety in construction

Attitude
- Personal Attitude
- Relationship Attitude

Part 3: Problems, obstacles and needs of work places.
The process and product research tools were verified and tested by seven experts revealing an Index of Item Objective Congruence (IOC) of 0.82.

Data Collection

The research was conducted in the following steps: [5]
1) Review the literature regarding the occupational standard of welding.
2) Developed a questionnaire.
3) Collect data using the questionnaire developed.
4) Analyses the data and conclude the results.
   Data was collected by mailing questionnaires to population group and visiting some workplaces by the researchers themselves. Questionnaire of 147 sets were send to collect data and were return to the researches 102 sets of them. Then the questionnaires were grouped according to their completeness and data was be analyzed to find out the results.

Data Analysis

Data analysis was done using SPSS/FW (Statistic Package for Social Science/for Windows) software. The part with selection items was analyzed using frequency and percentage. The part with five scales was analyzed using mean (X) and standard deviation (S.D.). The levels of agreement from respondents were as follows:

Average Score

4.00 – 5.00 means strongly agree
3.00 – 3.99 means slightly agree
2.00 – 2.99 means slightly disagree
1.00 – 1.99 means strongly disagree
Result of the study

The study found that the highest expectations the civil instructors’ expectations of the characteristics of the civil career in Thailand. Shown in table 1 the highest expectations of the civil instructors.

Table 1 the highest expectations of the civil instructors

<table>
<thead>
<tr>
<th>Item performance</th>
<th>Agreement Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
</tr>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>1. Knowledge and General basic skill</td>
<td></td>
</tr>
<tr>
<td>General career</td>
<td></td>
</tr>
<tr>
<td>• Understand the role of government various and can coordinate work appropriately</td>
<td>4.67</td>
</tr>
<tr>
<td>• Can be communicate, written report, respond letter or conversation by used English language</td>
<td>4.63</td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>2. Knowledge and especially skill</td>
<td></td>
</tr>
<tr>
<td>Knowledge or writing construction skill</td>
<td></td>
</tr>
<tr>
<td>Can read and write an industry standard</td>
<td>4.82</td>
</tr>
<tr>
<td>Topic</td>
<td>Score 1</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Can use a computer program for drawing.</td>
<td>4.60</td>
</tr>
<tr>
<td>Knowledge in written form using (ShopDrawing) virtual reality (As Built Drawing)</td>
<td></td>
</tr>
<tr>
<td>Understand and write the Detail of various in architecture: in buildings and bridges, including curling iron brace to steel columns beams, floor and place steel.</td>
<td>4.62</td>
</tr>
<tr>
<td>Knowledge - understand and can write extensions of various complexity. Such as concrete adjoined, to stop concrete decant, Water Rubber Stop adjoined. etc</td>
<td>4.9</td>
</tr>
<tr>
<td>The estimated construction cost</td>
<td></td>
</tr>
<tr>
<td>Knowledge rules standard price calculation.</td>
<td>4.60</td>
</tr>
<tr>
<td>Can be classified work: materials, labor, fee, tax, profit.</td>
<td>4.57</td>
</tr>
<tr>
<td>Technical approach and work construction.</td>
<td></td>
</tr>
<tr>
<td>Planning sketch and construction process.</td>
<td>4.65</td>
</tr>
<tr>
<td>Knowledge, process construction as well as techniques and methods.</td>
<td>4.63</td>
</tr>
<tr>
<td>The material testing</td>
<td></td>
</tr>
<tr>
<td>Can be applied and used material</td>
<td>4.48</td>
</tr>
<tr>
<td>Topic</td>
<td>Value 1</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Knowledge, material testing principle rules and standard material testing process of wood, concrete, water and other material.</td>
<td>4.50</td>
</tr>
<tr>
<td>Analysis, Design and part of structure Behavior</td>
<td></td>
</tr>
<tr>
<td>Can analysis and part of steel in concrete design for standard in country and national standard.</td>
<td>4.59</td>
</tr>
<tr>
<td>Knowledge part of various structure Behavior are footing column beam slab when have a force: the lose of structure</td>
<td>4.51</td>
</tr>
<tr>
<td>Management of construction</td>
<td></td>
</tr>
<tr>
<td>Knowledge of Administration and finance management.</td>
<td>4.59</td>
</tr>
<tr>
<td>Knowledge of Time Management</td>
<td>4.53</td>
</tr>
<tr>
<td>Civil Law</td>
<td></td>
</tr>
<tr>
<td>Knowledge of laws related to construction</td>
<td>4.68</td>
</tr>
<tr>
<td>Can prepare documents for tender construction and controlling construction.</td>
<td>4.61</td>
</tr>
<tr>
<td>Building Systems</td>
<td></td>
</tr>
<tr>
<td>Systems of energy conservation in interior and exterior basic.</td>
<td>4.61</td>
</tr>
<tr>
<td>Can assemble and install intelligent</td>
<td>4.56</td>
</tr>
</tbody>
</table>
The result of the civil instructors’ expectations of the characteristics of the civil career show that the interesting data in many aspects. This is useful for implementation next or use for develop the appropriate occupational standard of civil for Thailand.

### Conclusion

This research was to study the civil instructors’ expectations of the characteristics of the civil career. The results of this study show that the data and information of this study can used as a guideline to develop the appropriate occupational standard of civil engineer for Thailand. This research was a survey research and the tool used in collecting the data was questionnaire which consisted of Part 1: General information about respondents . Part 2: the civil instructors’ expectations of the characteristics of the civil career. Part 3: Problems, obstacles and needs of work places. Other size, the benefit of this research was improve occupational standard, the professional workers, understanding for civil engineer career and include good attitude.
Acknowledgements

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Not All Bob’s Wear Square Pants: A library based literary enrichment program

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ABSTRACT

School libraries of the 21st century face many changes and continue to integrate with classroom learning and teaching as well as curriculum. One of the significant aspects of change is for libraries to be an integral partner of teachers in literacy development. A major current trend of school library services is to develop interest in reading through extracurricular reading programs. These programs take a variety of forms from pre-packaged school wide initiatives such as Accelerated Reader to classroom initiatives like Drop-Everything-and-Read (DEAR).

However, one thing that most of these programs have in common with each other is that they are housed in one school or school district and are targeted towards self improvement and students seldom display their knowledge of the books they have read publicly. The Battle of the Books program (BoB) is different in that it requires students to compete in teams against not only other students in their own school but in a district or city competition. This competitive aspect of the program is a radical departure from other reading enhancement programs and offers a unique set of advantages and difficulties in enhancing student reading levels. The introduction and development of BoB to Hong Kong, evolution of its implementation in over 30 schools in Hong Kong and its uniqueness in improving student reading will be examined in this paper.

Keywords: Library literacy program, Curriculum integration, reading enhancement
A Decade of Education Reform in Thailand: Broken Promise or Impossible Dream?

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ABSTRACT

This study addresses the gap between the vision of education reform in Thailand embodied in its Education Reform Law of 1997 and implementation results a decade later. The paper draws on data obtained from a sample of 162 Thai school principals in 2008 during a series of workshops held for 1,800+ principals from all four regions of the country and levels of the K-12 system.

The paper analyzes trends in reform implementation in the K-12 educational system by addressing three research questions:

1. Which types of reforms do school principals perceive as high priority?
2. What pattern of progress has been achieved in implementing these key reforms?
3. What factors are impacting educational reform in Thai schools?

The results suggest that a decade following the formal initiation of education reform, changes in teaching and learning, ICT implementation and school management systems have yet to engage the nation’s teachers to a substantial degree. The results are linked to a reform strategy that has emphasized top-down implementation and a cultural predisposition to treat change as an event rather than as a long-term process. The findings offer insight into the extent of progress as well as factors that are impacting efforts to bring about change at the school level. Understanding the nature of factors impacting successful educational reform represents a potentially important contribution for regional policymakers, as well as to the theoretical literature on educational and organizational change.
Development of Risk Evaluation Standards and Indicators in the Institute of Physical Education.

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ABSTRACT

The main purpose of this research is to develop the Risk Evaluation Standards and Indicators in the Institute of Physical Education. Four steps of research methods will be used. They are as follows: 1) to establish the Risk Evaluation Standards and Indicators in the Institute of Physical Education, by way of analysis and synthesis of the theory taken from documents, relevant research studies, and the interviews with twelve experts, 2) to test the validity, appropriation and possibility in measurement process of developable Risk Evaluation Standards and Indicators in the Institute of Physical Education conducted by experts and samples from the Institute of Physical Education, 3) to implement such Risk Evaluation Standards and Indicators in the Institute of Physical Education by 26 persons participated, and 4) to evaluate the Risk Evaluation Standards and Indicators in the Institute of Physical Education conducted by the same group. The tools used in this research comprise of structured interview and questionnaire. The study applies both the descriptive and inferential statistics to analyze the quantitative data, using a computer program. Content analysis is also employed to analyze the qualitative data.

Nevertheless, the first proposed model of Risk Evaluation Standards and indicators in the Institute of Physical Education is determined by five standards with twenty four sub-standards and one hundred and two indicators consisting of fifteen policies, eighteen strategies, sixteen finances and budgets, twenty seven working performances and twenty six external impact factors.

Keywords: Risk, Risk Evaluation, Risk Evaluation Standards, Risk Evaluation Indicators, and Institute of Physical Education (IPE)

Introduction

Risk is a threat, possibility or chance of something that may happen, or an event of action or failure will adversely affect the ability of organizations in achieving their business objectives and in executing their effective strategies. In my point of view, the Risk Evaluation Standards and Indicators in the Institute of Physical Education is a significant tool for driving education to a sustainable development. It assists to execute and control activities and procedures in order to limit the basic factors producing loss to the institute in terms of both financial and non-financial models, such as prestige, effectiveness or damage which occurs due to the violation of law and order, etc. In addition, with emphasis of strategic achievement of goal or objective, it helps to be accepted and evaluated systematically for the degree and size of risk in the future.
For reducing such a weak point, limitation and threat, therefore, the development of Risk Evaluation Standards is urgently and highly required. However, since the survey of the review of related literature performed by the researcher, it is obviously observed that no evaluation of Risk Evaluation Standards and Indicators in the Institute of Physical Education has been made before. With reference to the result mentioned above and the purpose of highly effective development for Risk Evaluation quality, the researcher as a lecturer of the institute is greatly interested in developing the Risk Evaluation Standards and Indicators in the Institute of Physical Education. It also becomes an initiative point to construct the Risk Evaluation Standards and Indicators in the Institute to be accepted nationwide and being beneficial for further researches.

**Questions of the study**

Here are the questions related to the research
1. What are the Risk Evaluation Standards and Indicators in the Institute of Physical Education?
2. How are the Risk Evaluation Standards and Indicators in the Institute of Physical Education verified?
3. In what extend are the Risk Evaluation Standards and Indicators in the Institute of Physical Education implemented?
4. How are the Risk Evaluation Standards and Indicators in the Institute of Physical Education evaluated?

**Purposes of the study**

The main purpose of this study is classified into four categories described as follows:
1. to establish the Risk Evaluation Standards and Indicators in the Institute of Physical Education,
2. to verify the Risk Evaluation Standards and Indicators in the Institute of Physical Education,
3. to implement the Risk Evaluation Standards and Indicators in the Institute of Physical Education,
4. to evaluate the Risk Evaluation Standards and Indicators in the Institute of Physical Education.

**Significance of the study**

In the hope of carrying out the study successfully, the researcher finds out that, first, this would be a useful material for project designers, evaluation researchers and others interested in “risk evaluation”, especially in physical education. Second, the author would like this to be a forum to share ideas about ‘risk evaluation’ study and practice in the specific venue in educational sectors and later in other fields in real life.
Research Methodology

This research is conducted by means of research and development (R&D) method which comprises four phases presented below:

Phase 1: Establishment of the Risk Evaluation Standards and Indicators in the Institute of Physical Education
The process is categorized thus:
1.1 Reviewed documents and research findings related to Risk Evaluation Standards and Indicators
1.2 In-depth interview of experts in risk management and physical education
1.3 Conducting formulation of an initial hypothetical model of Risk Evaluation Standards and Indicators in the Institute of Physical Education

Phase 2: Verification of the Risk Evaluation Standards and Indicators in the Institute of Physical Education
The process is divided as follows:
2.1 Test of the content validity by means of measurement process of developable Risk Evaluation Standards and Indicators in the Institute of Physical Education conducted by 25 experts from the Institute of Physical Education and risk management organization.
2.2 Test of appropriation and possibility by means of measurement process of developable Risk Evaluation Standards and Indicators in the Institute of Physical Education conducted by 25 experts as mentioned in 2.1
2.3 Verification of concurrence of hypothetical model from phase 1 with the empirical data employing a computer program. The sample size is 400 participants selected from the Institute of Physical Education by using proportional stratified random sampling technique.
2.4 Determining the criterion of Risk Evaluation Standards and Indicators in the Institute of Physical Education and source of evaluators conducted by 25 experts as mentioned in 2.1

Phase 3: Implementation of the Risk Evaluation Standards and Indicators in the Institute of Physical Education
The steps used in this phase are:
3.1 The selection of the target subjects. The participants are classified into 26 qualitative data participants. They are chosen from the Institute of Physical Education.
3.2 The participants implement Risk Evaluation Standards and Indicators in the Institute of Physical Education.
3.3 Data analysis and conclusion.

Phase 4: Evaluation of the Risk Evaluation Standards and Indicators in the Institute of Physical Education
These steps are as follows:
4.1 The selection of the target subjects. The participants are as the same group as mentioned in phase 3
4.2 The participants answer the questionnaire focused on utility, feasibility, propriety and accuracy applied by the Joint Committee for the Standards of Educational Evaluation.

4.3 Data analysis and conclusion.
Results of the documentary synthesis and In-depth interview of experts in risk management and physical education

The following is a conceptual framework:

An initially hypothetical model of Risk Evaluation Standards and Indicators in the Institute of Physical Education
Meaning of symbols

RISK : Risk Evaluation Standards and Indicators in the Institute of Physical Education
POL : Risk Evaluation Standards on policy
STR : Risk Evaluation Standards on strategy
BUD : Risk Evaluation Standards on finance and budget
PRA : Risk Evaluation Standards on practice
EXT : Risk Evaluation Standards on the external impact factor

POL1...3 : Sub-standards of Risk Evaluation Standards on policy synthesized from documents and related research

POL1 : Risk on making a policy of the Institute of Physical Education
POL2 : Risk on putting into practice the well-made policy of the Institute of Physical Education
POL3 : Risk on following and evaluating the well-made policy of the Institute of Physical Education

STR1...5 : Sub-standards of Risk Evaluation Standards on strategy synthesized from documents and related research

STR1 : Risk on making a strategy of the Institute of Physical Education
STR2 : Risk on administrating the well-made strategy in terms of input of the Institute of Physical Education
STR3 : Risk on administrating the well-made policy in terms of process of the Institute of Physical Education
STR4 : Risk on administrating the well-made policy in terms of output of the Institute of Physical Education
STR5 : Risk on following and evaluating the well-made strategy of the Institute of Physical Education

BUD1...4 : Sub-standards of Risk Evaluation Standards on budget and finance synthesized from documents and related research

BUD1 : Risk on making financial and budgetary arrangements of the Institute of Physical Education
BUD2 : Risk on noting an account and providing a financial report of the Institute of Physical Education
BUD3 : Risk on providing materials of the Institute of Physical Education
BUD4 : Risk on following and controlling financial and budgetary arrangements
PRA_{1...6} : Sub-standards of Risk Evaluation Standards on practice synthesized from documents and related research

PRA_{1} : Risk on administrating the education of the Institute of Physical Education

PRA_{2} : Risk on developing the system of administration of the Institute of Physical Education

PRA_{3} : Risk on developing the personnel of the Institute of Physical Education

PRA_{4} : Risk on conducting for research and development of the Institute of Physical Education

PRA_{5} : Risk on developing the system of Information and Communication Technologies of the Institute of Physical Education

PRA_{6} : Risk on performing academic services as well as promoting /maintaining arts and cultures of the Institute of Physical Education

EXT_{1...6} : Sub-standards of Risk Evaluation Standards on external impact factor synthesized from documents and related research

EXT_{1} : The emphasis on developing the sports of the Institute of Physical Education for the standard of excellence

EXT_{2} : The socio-economic, socio-political and cultural conditions

EXT_{3} : The related law

EXT_{4} : The policy and hierarchy

EXT_{5} : The globalization

EXT_{6} : The rivals of the Institute of Physical Education

\[ \circ \] : Latent variable

\[ \square \] : Observe variable

\[ e_i \] : Error of observe variable

\[ \rightarrow \] : Causal relation between latent variable and observe variable
Expected outcomes of the study

Due to the ongoing study, the following may pose some of the expected results from the research.

Phase 1: Establishment of the Risk Evaluation Standards and Indicators in the Institute of Physical Education
From this part of the study, there would be in-depth interviews of 12 experts from higher education institutions and from “best practice” institutes in Thailand, in risk evaluation in physical education. And there would be descriptive reports about these. Then, the important thing is that the conducting formulation of an initial hypothetical model of Risk Evaluation Standards and Indicators in the Institute of Physical Education

Phase 2: Verification of the Risk Evaluation Standards and Indicators in the Institute of Physical Education
Also in this part, first, there would be a structured-questionnaire of 102 items to test of the content validity by means of measurement process of developable Risk Evaluation Standards and Indicators in the Institute of Physical Education conducted by 25 experts from the Institute of Physical Education and risk management organization. Then, test of appropriation and possibility by means of measurement process of developable Risk Evaluation Standards and Indicators in the Institute of Physical Education conducted by 25 experts as mentioned in the first part. Next, the verification of concurrence of hypothetical model from phase 1 with the empirical data employing a computer program would be deployed. The sample size is 400 participants selected from the Institute of Physical Education by using proportional stratified random sampling technique. Finally, determining the criterion of Risk Evaluation Standards and Indicators in the Institute of Physical Education and source of evaluators conducted by 25 experts as mentioned in the first part.

Phase 3: Implementation of the Risk Evaluation Standards and Indicators in the Institute of Physical Education
From this part, the steps used in this phase are: first, the selection of the target subjects. The participants are classified into 26 qualitative data participants. They are chosen from the Institute of Physical Education; second, the participants implement Risk Evaluation Standards and Indicators in the Institute of Physical Education, and finally data analysis and conclusion.

Phase 4: Evaluation of the Risk Evaluation Standards and Indicators in the Institute of Physical Education
In this part, these steps are as follows: firstly, the selection of the target subjects. The participants are as the same group as mentioned in phase 3, secondly the participants answer the questionnaire focused on utility, feasibility, propriety and accuracy applied by the Joint Committee for the Standards of Educational Evaluation and finally data analysis and conclusion.
Discussions and Recommendations

As mentioned earlier, this study is ongoing, thus, the author really does think that there would be specific Risk Evaluation Standards and Indicators created and implemented the Institute of Physical Education, Phetchabun, Thailand. Five standards, 24 sub-standards and 102 indicators would be “tools’ proposed to be used in this venue first and then may be spread out to be applied else where in Thailand and even in the world.

For the further study, the researcher would also like to make these Risk Evaluation Standards and Indicators in the Institute of Physical Education stronger with the ideas of more population in Thailand and from all over the world.

Conclusions

The study is undergoing. The ideas to create Risk Evaluation Standards and Indicators in the Institute of Physical Education and to implement them in the author’s workplace - the Institute of Physical Education, Phetchabun - would be true and applicable in the context as the author expected.

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In order to get this paper done, I would like to, first, send my sincere thanks to Assoc. Prof. Dr. Samran Mejang, Dr. Aumporn Linchareon, and Dr. Sayfon Vibulrangsan, my main advisors in Faculty of Education, Naresuan University, Thailand for their useful ideas to the backgrounds, materials and related issues about R&D (Research &Development) to the topic of my study. Second, my great thanks would go to Assoc. Prof. Dr. Rattana Bousonte, Head of Curriculum of Educational Research &Evaluation, Assoc. Prof. Dr. Arunee Onsawad and Dr. Pakorn Prachanban, class lecturers, who have spent their valuable time helping me with all knowledge about my major and research issues as well. Third, my deep gratitude would come to Ph.D. students of the year 2007 in Educational Research &Evaluation, Faculty of Education, Naresuan University, for their kind help and great encouragements. Fourth, my thanks would descend upon Dr.Khunakorn Khongchana, a lecturer of English at Buddhachinaraj Buddhist College (BBC) and Dr.Thai Cong Dan, a lecturer of English at Can Tho University (CTU), Vietnam for their English consultancy. And last but not least, I would like to send my deep thanks to the organizing committee of the International Conference on Educational Research (ICER) 2010: Learning Communities for Sustainable Development in Khon Kaen University (KKU), Thailand for offering me a good opportunity to present my paper to the public worldwide.
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Making “Active English Learning” Easy

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ABSTRACT

In 2006/2007, we tested different methods of English instruction at Watphrathatwittaya School in Nongkhai. We discovered student performance improves dramatically with more innovative teaching strategies. In 2008/2009, we used our UNESCO prize money to test our materials in similar poor schools in Isaan. These students reacted as positively as those at Watphrathatwittaya. Our goal now is to give Thai English teachers the support and materials they need to adopt these teaching strategies. This paper describes our work to date.

Thai students know many English words but find it enormously difficult to string them together in a meaningful way. They are scared to speak and understand little of what they hear. Many complete their assignments without understanding. This results in poor student motivation and performance. We discovered both improve dramatically with project-based work that emphasizes understanding, builds on student interests and provides meaningful opportunities to speak.

Speaking contests where students presented picture-based research projects on topics of their choice proved enormously successful. Student motivation remained high throughout, all completed the task and students and teachers alike were proud of their level of achievement. The key to success was providing a simplified grammar that made it easier for students to string together the words they knew. The overall rule was “Mai kao jai Mai pood”. If you don’t understand it, don’t say it.

This kind of teaching is challenging for Thai teachers, but all can be overcome with the right support and teaching tools.

Keywords: Curriculum and Teacher Support, Active Learning, UNESCO IFAP 2008

Introduction

In March 2008, UNESCO IFAP awarded us the prize for Asia for our story entitled “Team Teaching English at Watphrathatwittaya School in Nong Khai, Thailand”. It described our attempts in 2006/2007 to find new and better ways to teach English that improved student performance and motivation. Our prize money gave us the opportunity to test our teaching materials in similar poor rural schools in Nongkhai province. Would other students respond as well as those at Watphrathatwittaya? Would other Thai English teachers like our teaching materials and approach? What was the best way to give other teachers and students first-hand experience and training in creative student-centered English instruction?
A series of speaking contests in 2008/2009 involving ten schools in Nongkhai province demonstrated the success of our approach. Student motivation remained high throughout and performance exceeded all our expectations. But, this kind of teaching is challenging for Thai teachers and students. They need the right kind of support and teaching tools. Current texts do not provide the support they need for more creative teaching.

In 2009, the Office of National Buddhism gave us a grant to develop new curriculum materials to support more creative teaching in Temple schools. Their generous support gave us the opportunity to develop our materials into a new Thai/English book with CD-ROM entitled “Teachers’ Guide: Active English Learning Made Easy”. This book is specifically designed to meet the learning needs of novices and monks studying English in Temple schools. It also gives Thai English teachers the tools and support they need to teach more creatively.

This paper describes our attempts to make “Active English Learning” easy for Thai teachers and students. It examines the challenges we faced and the solutions we discovered in our quest to improve the quality of English instruction in poor Thai schools. It shares the lessons we’ve learned and our hopes for the future.

Teaching Goals and Guiding Principles

Learning English is important for all Thai students. It is now the international language of business and becoming proficient in English opens many doors to better jobs at home and opportunities abroad. This is especially true for poor students from rural areas that have limited opportunities to better their own lives and the lives of their families.

While Thai students study English throughout primary and secondary school, achievement levels are often very low. This is especially true in poor, rural schools with limited resources. Many students do not understand what they learn and give up trying because they believe it is too hard. They do not understand what they hear and cannot say what they want to say. Failure rates on national tests are often very high.

Our work together at Watprathatwittaya taught us this could change. Students got excited about learning English and performed beyond all expectations when instruction was fun, relevant and creative. We wanted to share these teaching strategies with other Thai teachers from similar schools so they could improve the quality of English instruction in their own schools.

Our teaching goals throughout were the following.
1. Give students the opportunity to use the language they learn in a meaningful way.
2. Ensure that students understand what they read, write, hear and say.
4. Create assignments that meet student needs so no students are left behind.
5. Create a safe learning environment where learning is fun and no one is afraid to make a mistake.
6. Give Thai teachers the support and tools they need for creative teaching.

The first 3 moral teachings of Buddhism became our guiding principles.
**Work hard**

Learning is never easy. No one learns without working hard. We must teach our students to want to work hard and be happy when they do. When students do something right for the first time after working hard they are proud. It makes them want to learn more. Student achievement levels improve.

**Save – Don’t waste**

When students don’t pay attention they waste their time, their fellow students’ time and their teachers’ time. When students care about what they learn, they listen and work harder. Everyone learns more.

**Tell the truth – Be honest**

In Thai culture, students and teachers are very shy. They are afraid to make a mistake. They say they understand when they don’t. They will not speak because they may say it wrong. We must help them understand that making mistakes is how all people learn. All understanding begins with accepting the truth.

Teaching together taught us that:

1. Students work harder when lessons are meaningful.
2. Students pay more attention when they are interested.
3. Students will be more honest when learning is fun and making mistakes is a natural part of learning.

**Student Projects**

Projects on topics of interest that students present meet all these teaching goals and principles. They give students the opportunity to use their language skills in a meaningful way that is fun and grounded in their own interests. They build confidence by providing public speaking experience. Students are proud of what they accomplish and remember what they learn. Such projects are also flexible. Teachers can modify the projects to better suit their particular students’ needs making them relevant and appropriate. Students can work at the level that is best for them. Rote learning without understanding is replaced by real learning where students demonstrate their understanding and mastery of the language learned.

Eleven different projects were tested in ten different schools (five were Temple Schools) in Nong Khai Province. All were built around common themes that are part of the regular curriculum. The themes included countries, tourist attractions in Thailand, family, dream future, animals, news, weather, directions, daily activities and first meetings. Depending on the project, the size of the class, and teacher preference students worked individually, in pairs or in larger groups.

All projects were picture and/or action based. Students found or drew pictures of the people, animals, activities or places they were describing. No copying from the Internet or books was permitted. Students had to describe their pictures using their own words and point to the appropriate picture during their presentation to demonstrate understanding. They were taught a simple grammar to make it easier for them to create grammatically correct sentences that they could understand, speak clearly and remember.
Some presented using PowerPoint while other created a Poster for their presentation. In some cases, students acted out situations or events. Every student in the group spoke.

The Challenges

This kind of teaching is very challenging for Thai students and teachers for a variety of reasons. This is particularly true for poor, rural schools where resources are extremely limited, academic levels tend to be very low, many Thai English teachers lack confidence in their own facility with the language and both teachers and students are afraid of making a mistake. Here are the most significant ones.

Playing it Safe: Teaching from the Book

Many Thai teachers simply teach from the text. Students complete the exercises in the student workbook and teachers mark them with all the correct answers in their teachers’ book. While this is very safe and easy for teachers, it works poorly for students. Student levels are far below that in the texts. They do not understand what they read, write, say or hear. They complete their exercises without understanding and fail to develop any real mastery over the language year after year. Students lose interest and motivation and performance suffers.

Project based learning has the opposite effect. Based on student interest and levels, it gives students the opportunities they need to use the language they learn in a meaningful way that they understand and remember. Motivation remains high and performance improves. But, it is not easy. This kind of teaching requires flexibility and creativity from teachers. They must adapt projects to the specific needs of their students and edit student work. There is no guide that will have all the right answers for them to rely on. They must risk making a mistake just like their students. Thai culture makes this very difficult for them.

We found that Thai teachers can overcome this challenge with the right kind of support. When we began teaching, Thai teachers were excited to have us but did not believe their students could complete the projects. Over the course of our project, teacher skepticism and fear gave way to interest and active participation. Once they understood the process better through first hand experience they took a leadership role on their own. One example stands out.

Our first Speaking Contest was held at Sermpittayakom in the Phonpisai District of Nong Khai Province with students in M3-M6. Getting started was very difficult and for a while none of us believed we would succeed and the students would finish. To all our surprise, they did and surpassed all our expectations. 22 groups of students completed an Internet research project and presented a PowerPoint presentation on a country of their choice. Everyone student spoke and there was no copying from the Internet. When the school participated in another project the following term, the Thai teacher took control of the project. Teaching for us became easy and all students were well prepared for the final Speaking Contest. In fact, a group from this school won the “Best Research Project” award at the final speaking contest at Watphrathatwittaya on August 29, 2009. The teacher is planning to do more projects with her students on her own.

Overcoming Student Shyness

Thai students tend to be very shy. They speak in small voices and are often afraid to perform in public. They need lots of encouragement and practice to develop the
confidence to speak in a loud, clear voice. This is especially true when Thai students are asked to role-play in public. Their actions tend to be small and often lack the expression required for performance. We found that with the right support, students can overcome their shyness to perform very well. Here is an example.

M2 students at Thanakornsongkroh School in the Mueng District of Nong Khai Province completed the project on Daily Activities. In groups of 4-6, students chose a special day and created a short play acting out the activities associated with that day. The four groups chose Mothers’ Day, Fathers’ Day, Songkran and Christmas. Students worked hard but performed poorly at the school speaking contest. They did not have enough time for practice and were too shy to speak loudly and act with full expression. In consultation with the Thai teacher, we decided to choose one performance for more students to participate in. The teacher was given the freedom to change the script as she saw fit to meet her students’ needs.

At the final contest on August 29, 2009, 15 students performed a ten-minute play about Christmas complete with props such as a Christmas tree and presents. They acted out buying presents at various shops the week before Christmas, decorating the tree the day before Christmas, getting up and opening presents Christmas morning and eating Christmas dinner in the evening. They ended the performance singing, “We wish you a Merry Christmas”. The audience loved it and cheered loudly when it was over. It was a magnificent performance that won the “Best Performance Award.” The teacher later informed us that one of the students in the performance had spoken in public for the very first time.

The teacher succeeded in helping her students overcome their shyness with several strategies. She made sure each student had lines they could perform well, arranged for some students to act out in pairs making it easier for them to speak loudly without a microphone and modified the actions to make it easier for her students to perform. Finally, she gave them lots of time to practice. It demonstrated to all of us that Thai students could perform in English well with the right kind of support.

Helping Weak Students with Limited Academic Success

One of the biggest hurdles for us was helping the novices at poor temple schools complete their projects. These schools tended to be very small with very few resources. Two had no English teachers for us to work with. Student achievement levels were particularly low and few believed the novices could even complete a project much less perform it well. Counteracting these drawbacks was the overwhelming desire the novices displayed to complete their project and the willingness of the stronger students to help the weaker ones. They were excited to work with us and worked hard on their own to complete their project. We were not successful with all the schools, but some do stand out as success stories.

Watprathatbangpuan School in the Mueng district of Nong Khai Province is a very small school with about 50 M1-M3 students. Their M3 project was to create a short news report on an event of their choice. Students looked for a picture from a Thai newspaper or magazine of an event or personality that interested them. We then helped them create a short news report describing their picture. Unfortunately, many were unable to read English and the activity turned out to be much too difficult for them. We had to simplify the task considerably. In the end, they simply introduced themselves, identified an event in a picture and acted out the activity to demonstrate they understood what they were saying. At the school contest, everyone did their best but no group was
ready for the final contest on August 29th. A few, however, displayed their eagerness to perform by speaking loudly and demonstrating their hard work. These novices formed a new group, overcame their fear and successfully presented their report with a Poster at the final contest on August 29th. Watching the performance, Dr. Amnat Buasiri, the Director of the Secretariat of the Sangha Supreme Council said, “I never thought I’d see novice students speaking English in a public place but today I have seen they can do it. It is best to support this kind of learning.”

At Wahphothisomparn School, another very small, poor Temple school, the M2 novices created a Poster on an animal of their choice. Most worked in pairs but the novice with the winning project worked alone. He was the strongest student in the class. At the final contest on August 29th, he presented his project with 4 of his classmates. He had given each of them a speaking part and had helped them learn it. It was a wonderful demonstration of how novices can help and learn from each other.

Putting Understanding before Grammar

Much of the Thai English curriculum and national testing is focused on grammar. Consequently, most class time is devoted to completing complicated grammar drills that are needlessly complex and beyond student comprehension levels. They don’t understand what they read, write or hear. Nor do they get enough opportunities to practice speaking. Often fear of making a grammatical mistake prevents students and teachers from trying to speak or write their own sentences.

Simplifying grammar makes it easier for students to understand and say more. We found that Thai students know many English words but don’t know how to connect them in simple grammatical sentences. When we gave them the simple grammar they needed, they could write their own presentations without cutting and pasting from the Internet or copying from books. Here is one example.

M2 students at Watphongam School in Phopisai district in Nong Khai province completed a project entitled “My Dream Future”. This was another small temple school where the novices had very little mastery of English. They began by finding and drawing pictures of their future. This included what they wanted to be, have, see and do. By teaching them the simple grammatical constructs; “I will ________, I will have ________, I will go to ________, and I will be a __________”, they had all the grammar they needed to say what they wanted to say. They learned the simple future tense while completing a project they enjoyed about their own future. When grammar instruction is integrated this way students understand and remember what they learn.

Lessons Learned

We are very grateful to the schools, teachers and students who participated in this project. They taught us many things. Here are some of the most important lessons we learned.

Increased Student Motivation is a Powerful Tool

When students are motivated to learn they can exceed all expectations. M3 novices at Watphratathatwittaya were so excited about their Shopping Skit they worked day and night on their presentation with and without our assistance. In fact, every
presentation at the Final Speaking Contest on August 29th demonstrated that students and teachers had worked hard to improve their presentations after our last visit to their school.

**Thai Teachers can be very Creative with the Right Support**

Thai teachers understand their students best and know what their students need. Once they understand this kind of teaching they can adapt the projects to better meet their students’ needs. The teacher at Viengkumwittayakarn School created a PowerPoint presentation to help her M2 students practice their Directions Song. At the final contest her students not only performed the song as we expected but explained and demonstrated all the steps along the way using the PowerPoint presentation.

**Students Need to Work at the Right Level**

No real learning takes place without understanding. Our overall rule with students was “Mai kao jai - Mai pood.” If you don’t understand it don’t say it. It is always best to say less with understanding than more without. When necessary, we simplified projects to better match student capabilities. Projects work best when they build on the vocabulary students know and give them the opportunity to use it in a meaningful way they will remember. Some students can do more than others. All have to be helped to do their very best.

**Next Steps**

From the beginning, our focus has been on poor schools that do not have the resources to hire foreign English speaking teachers. Nor, are there enough English speaking volunteers to go around. Like UNESCO, we believe in quality education for all. We want all children to have the same opportunities to learn. We know that quality instruction in English is necessary for them to access all the world has to offer.

Our goal now is to help Thai teachers improve the quality of English education in their own schools by helping them teach more creatively on their own. To do this they need the right kind of materials and support. Our book for the Office of National Buddhism curriculum project, “*Teachers’ Guide: Active English Learning Made Easy*”, is a beginning. This book with CD-ROM provides Thai teachers in temple schools step-by-step instructions for completing the student research projects tested in Nongkhai province. It provides teaching tips, lesson plans, worksheets, games, vocabulary pictures and voice recordings that are specifically designed for students at temple schools. But this is only a first step.

To truly improve the quality of English instruction, we must train teachers to use the book effectively, monitor its success and make changes as required to improve its usefulness. Over time we hope to adapt the book as required to meet the different learning needs of different students. To be generally useful for all Thai students, the book should be modified to include different examples that appeal to girls as well as boys and include more singing, dancing and acting. Over the next year, we will be promoting our book, training teachers and monitoring its use. We hope to find many new partners in our ongoing work to improve the quality of English instruction in Thailand by making “Active English Learning” easy.
Acknowledgements

We are very grateful to UNESCO Information for All Project and the Office of National Buddhism for their support, which made all this possible. We also want to thank all the Thai teachers and Directors who worked with us. Their help was invaluable. Finally, we want to thank all the students from the participating schools who worked so hard and welcomed us so warmly.

Appendix A
UNESCO Project
Participating Schools and Projects

1. Watprathatwittaya School, Mueng district, Nong Khai.

We completed 2 projects with this Temple School
Shopping (M3): Students created a short skit about buying an object of their choice. For the final performance on August 29th, we combined three skits by creating a marketplace with three stalls and three sets of buyers and sellers. This project was very difficult for these students and they all performed better than we expected
Weather Report (M1): Students presented a 5 day weather forecast using PowerPoint for the weather in a city and country of their choice. They learned weather words, days of the week and how to read numbers.

2. Watphongam School, Phonpisai district, Nong Khai.

My Dream Future (M2): Working individually, students collected and drew pictures of things they would have or do in the future. They then created a poster presentation about their Dream Future using the simple future tense.

3. Watphothisomparn School, Mueng district, Nong Khai.

Animals (M2): Working in pairs, students created a poster presentation of an animal of their choice. They described their animal and showed where it lived on a world map. There was a picture for every sentence they spoke to demonstrate their understanding.

4. Watprathathbangpuan School, Mueng district, Nong Khai.

News Report (M3): This project had to be simplified to match student capabilities. They did not have the language to create a simple news report about an event or famous person of their choice as originally intended. In fact, it was very difficult for the novices to speak at all. Instead, they created a poster about an activity or event they liked, introduced themselves and the activity and acted it out to demonstrate their understanding.

5. Thanakornsongkroh School, Mueng district, Nong Khai.

Daily Activities (M2): Working in larger groups, students drew pictures of the activities associated with a special day of their choice. From these pictures, a script was developed for the students to act out. Every member had a speaking part.

6. Phrathatbangpuanwittaya School, Mueng district, Nong Khai.

Making Friends (M1): Working in pairs, students wrote a short script of a first meeting in Thai which we helped them translate into English. They then acted out their script.
They introduced themselves to each other and asked each other basic questions about their age, family, where they came from and what they liked.

7. Viengkumvittakarn School, Mueng district, Nong Khai.
**Directions (M2):** Students learned basic directional words and created a song with actions using them. For the final performance on August 29th they also described all the steps along the way using a Powerpoint presentation.

8. Sermpittayakom School, Phonpisai district, Nong Khai.
Two projects were completed at this school
**Country Project (M3-M6):** Working in groups, students created a Powerpoint presentation of a country of their choice. They answered basic questions about their country using [www.theodora/maps.com](http://www.theodora/maps.com) and described pictures they found on the internet using Google images. No copying from the internet was permitted. Students described their pictures using their own words and were taught how to construct their own sentences using the language in a question.
**Tourist Attractions (M3):** Working in groups, students created a Powerpoint presentation of a Tourist attraction in Thailand of their choice. They described pictures and maps of it they found on the Internet using Google images. No cutting and pasting from the internet was permitted.

9. Banpua School, Phonpisai district, Nong Khai:
**My Family (M1):** Working individually, students created a Poster presentation of their family. They described each member of their family including themselves. Students learned to use the pronouns he, she, I and me correctly. They also learned to read numbers for age and describe something each member of their family liked.

10. Watphrathatwittaya School, Mueng district, Nong Khai:
**Shopping (M3):** We were not successful completing this project with this school. While most novices were excited to do it, there was not sufficient teaching and administrative support from the school to complete the task. M3 students from Watphrathatwittaya completed this project instead.

**Appendix B**
**Sample Lesson Plan (UNESCO Project 2008/2009)**

**Activity 1**
**My Family**

This activity builds on the basic vocabulary Thai students have to describe themselves and their family. It helps them connect the words they know into a meaningful presentation using grammatically correct sentences and simple grammar. It is a flexible activity that allows all students to work at a level that is appropriate for them.

**Purpose**
Give students an opportunity to create a presentation about themselves and their family to build their confidence in speaking English.
Outcome
Each student creates a poster about themselves and their family which they present to the class in a simple speech.

Materials
Poster Board, colored markers, glue, family pictures

Steps
1. Students draw pictures of themselves and their family. They make a list of all the words they know describing each person – name, age, appearance, colors, likes. This can be made into a game with students receiving a point for each word. The student with the most words wins.
2. Show students how to connect the words into simple sentences using the simple present tense. Here are some examples of simple sentences.
   This is _____________
   My Mother is ___________ years old.
   My _________ has _____________
   He/she likes ___________
3. Students collect and/or draw pictures of their family. There must be at least one picture of each member of the family. Students write simple sentences describing each picture.
4. Students create a colorful poster about themselves and their family using their pictures. Each picture is labeled with one or more short descriptive sentence using the simple present tense. Students prepare a short speech describing each picture in their poster. Help them edit as required.
5. Students practice giving their speeches with a partner or in small groups. Encourage students to help each other improve their delivery. Practice time is very important. It gives students the time they need to truly master and remember the language they are learning. Without practice they quickly forget what they’ve learned.
6. Presentation Day – Each student presents their poster and gives their speech. Certificates and prizes are awarded

Variations
There are many different ways you can tailor this project to better suit your students’ needs and school resources. It can be very simple and small or more complex and detailed. Here are some variations you may want to consider.

1. Make it easier by limiting the number of sentences students must create and/or providing simple questions that the students must answer.
2. Make it more challenging by expanding the scope of the project. Students can also include information about their home, community, likes/dislikes and/or hopes and dreams. Presentations can be just a few sentences or considerably longer.
3. Change the form of the presentation to include only a short speech, a Powerpoint presentation, or a Family Scrapbook instead of the poster.
4. Introduce more complex grammar such as compound sentences. This project is well suited to teaching students how to add complexity by combining sentences or adding more information. For example, the simple sentences “This is my mother. Her name is Marion Kert.” can be combined to make one sentence “This is my mother...
Marion Kert.” Similarly, simple sentences can be expanded easily by simply adding extra information. For example, the sentence “I like football” can be made more interesting by also stating how, with whom, where and/or when. “I like to play football with my brother after school.” Don’t worry about order. “I like to play football after school with my brother.” and “After school, I like to play football with my brother.” are grammatically correct too.

5. Provide more or less teacher assistance depending on student needs. If students are very basic the teacher may want to prepare them by first teaching the necessary vocabulary and giving the students more direction. The project, at its most basic, can simply involve students introducing themselves and each member of their family. More advanced students will require less teacher assistance and direction. All students should be encouraged to do the very best they can.

Appendix C
Family Project Poster and Script
Banpua School, Phonpisai District, Nongkhai
August 2009

Good afternoon. My name is ____. I study in Matthayyomsuksa 1 at ban Pua Wittaya. Today, I will talk about my family.

This is my older brother. His name is Li. He is 18 years old. He has short hair. He likes to drive a car.
This is my father. His name is Lue. He is 35 years old. He has short hair and black eyes. He is a gardener.

This is my mother. My mother’s name is Kay. She is 35 years old. She has long hair and black eyes. She likes cooking.

This is me. My name is Bee. I am 13 years old. I have long hair and brown eyes. I like to eat grapes.

Appendix D
Family Project Grammar, page 52
“Teachers’ Guide: Active English Learning Made Easy”
Ellen Kert, Pramaha Tharabun Khuchinda, Nikorn Patrat

Basic
This is me.
My name is ______ what? ______.
I am ______ how many? ______ years old.
I like ______ what? ______.
This is my ______ who? ______ (mother/father/brother/sister).
His/Her name is ______ what? ______.
He/She is ______ how many? ______ years old.
He/She likes ______ what? ______.

Intermediate
This is my older/younger ______ who? ______.
(This is my older sister. This is my younger brother.)
My ______ who? ______ is ______ what? ______.
(My father is a farmer. My older brother is very tall.)
I have ______ what? ______.
(I have long hair. I have a cellphone.)
My ______ what? ______ has ______ what? ______.
(My family has a dog. My sister has a pink dress. My older brother has a new motorcycle.)

Advanced
My favorite ______ what? ______ is ______ what? ______.
(My favorite color is green. My favorite sport is volleyball.)
Who? ______ like/likes to ______ do what? ______ with ______ whom? ______.
(I like to play computer games with my sister. My brother likes to watch TV with me.)
Who? ______ go/goes ______ where? ______ with ______ whom? ______ on ______ what day? ______.
(My mother goes shopping with my grandmother on Saturday.)
Our Winning Story: UNESCO’s Information For All Success Story Contest
“Team Teaching English with International English Speaking Volunteers at Watphrathatwittaya School” by Pramaha Tharabun Khuchinda and Ellen Kert

Since 2003, Teachers from PTY (Watphrathatwittaya) and English speaking volunteers from Openmindprojects (Nong Khai, Thailand) have worked together to improve English teaching for PTY students. (Novices aged 13-18). It’s a small school with 150 students from very poor backgrounds with limited academic success. Our story begins in October 2006. For 6 months we experimented with different teaching methodologies to find out what worked best. We wanted to give students the language they needed to say what they wanted to say and understand what they heard. Success was defined by increased student engagement, successful completion of assignments and the ability to use the language learned in a meaningful way.

Working together is challenging. Language and cultural barriers make communication difficult and sometimes lead to misunderstandings. They also provided fertile ground for learning from each other and creating approaches that take advantage of the best of each. In fact, working through these barriers with good will and humour significantly contributed to our ultimate success. It was a wonderful experience for both of us.

Students studied from an English text provided by the Thai government. It left much to be desired. The language was too advanced for the students to understand, the grammar so complex it would befuddle most Canadian university students and the examples were based on American, not Thai, experience. Teaching from the text resulted in rote recitation without understanding and endless out-of-context grammar drills. Students could not remember or use what they learned.

Adapting the text to suit student needs didn’t work well. The examples and language were just too advanced and lacked any real connection to the world students lived in. Integrating computer technology in practical ways with English instruction helped. Students like working with computers. Unfortunately, their language capabilities were too limited for ongoing email communication or creating newsletters. Real success began when we created our own curriculum based on student needs and interests. A variety of question-and-answer games proved very effective. Students loved them and it helped us assess what they knew and needed to learn. We then designed assignments based on the results. Research projects and a speaking contest were most successful. Students picked their own topics while we defined the scope and methodology to suit their capabilities. No student was permitted to say what they didn’t understand and grammar was simplified to help them say what they wanted to say, clearly, in words they could remember. All presented their work. They surprised themselves and us with their commitment and level of achievement. Students became eager to learn and many completed assignments and presented in public for the first time.

We are no longer working together but the quality of education at PTY continues to improve with more creative teaching. Meaningful projects and assignments involving all aspects of language acquisition are being incorporated throughout the curriculum. To the delight of all, students at the school recently won first prize in a speaking contest involving 430 temple schools. Watphrathatwittaya is alive with student learning.
Appendix F  
UNESCO News Release: UNESCO’s Information for All Programme awards project funding to five success stories

UNESCO’s Information for All Programme (IFAP) grants project funding of US$5,000 to five proponents of success stories illustrating the innovative use of information for development. Successful proponents are invited to submit a project proposal to replicate the good practices.

The Bureau of the Intergovernmental Council for IFAP selected five success stories around the world for the purpose of project funding:

1. Where there's a FLAME, there's a fire, Namibia
2. Open Source Software brings a new lease of life to libraries in Palestine, Palestinian Authority
3. Team Teaching English with International English Speaking Volunteers at Watphrathatwittaya School, Thailand
4. Our City, Our Voices: Immigrant Newscasts in the Digital Age, United States of America
5. It’s DEAF WAY! - Deaf community in NE of Brazil creating the tool of their own for development, Brazil

Those stories describe the innovative ways people and communities are using information to address issues that affect them directly and illustrate the benefits of using information for development. They provide good examples to inspire others and raise the visibility of the critically important role that information plays in development.

The Information for All Programme encourages communities to share their success stories in using information for development and help expand the reach of the most successful initiatives in all parts of the world (UNESCO. 2008)

References

An Action Research for Development of Internal Quality Assurance in the Aspect of Student Quality: A Case Study

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ABSTRACT

The objective of this research was to develop the internal quality assurance in the aspect of student quality of Phatharadon School to suit the context by using an action research. The process was divided into 2 phases: Phase 1, the studying of the internal quality assurance condition; Phase 2, development of the internal quality assurance in the aspect of student quality. The research group included the researcher, a researcher assistant, 16 teachers and 354 students. The variables under the study were the 8 internal quality assurance standards and 33 indicators. The instruments included a questionnaire, interview forms, and meeting minutes. The statistic used for information analysis was the mean, to analyze the problem level and the development needs, and content analysis was used with contents.

The results of this research revealed that the internal quality assurance in the aspect of student quality was in the medium level, and the development of internal quality assurance in the aspect of student quality was in the high level. The results showed that the teacher’s knowledge and understanding was better. And the teachers together set 4 indicators: 1) how often environment conservation and development activities were organized; 2) the number of activities concerning exercise promotion; 3) how often activities concerning student self-expression promotion were organized; and 4) how often activities concerning good relations were organized and how often the teachers together set the strategy for the development of the 4 indicators. The results showed that the school reached all the objectives.

Keywords: Action Research, Development of Internal Quality Assurance
Learning Activity of Thai Language Education Area in Grade 1 Level by Project-Based Approach

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ABSTRACT

This research is a pre-experimental design using One-Shot Case Study. It aims to study the result of learning activity of Thai Language Education Area in grade 1 level by Project-Based Approach and to study the opinions of grade 1 students at Demonstration Khon Kaen University School (Suk Sa Sart) towards learning activity of Thai Language Education Area by Project-Based Approach. The sample of this research is 37 grade 1 students having student no. 1-37 of room no.1 (Unit A1) at Demonstration Khon Kaen University School (Suk Sa Sart), first semester in academic year 2010. The instruments of this research are 1) learning plan of Thai Language Education Area in grade 1 by Project-Based Approach 2) project evaluation form 3) questionnaires about grade 1 students’ opinions towards learning activity of Thai Language Education Area by Project-Based Approach. The results showed that

1. Students passed the project evaluation criteria 60% equal 100% which their projects’ mean point was 25.75 out of 30 equal 85.83% which had the value of standard deviation (S.D.) as 2.32. When analyzed project mean point into 5 aspects, it showed that they got mean point as 5.65 or 94.16% for creativity, 4.51 or 75.16% for group process, 5.84 or 97.33% for benefits, 4.68 or 78.0% for project, and 5.08 or 84.66% for presentation. It was concluded that mean point of students’ projects passed the criteria (60%).

2. The result from the opinions of grade 1 students at Demonstration Khon Kaen University School (Suk Sa Sart) towards learning activity of Thai Language Education Area by Project-Based Approach showed that students thought that they got the direct experiences from doing Thai language projects. They had practiced so much that they could find out their skills and methods. Also, they had done the activities in exchanging and learning from the groups, and had been encouraged to find the answer for each problem. In addition, they had searched and collected the information and eventually found out the knowledge by themselves. It was considered as 97.29%. Students also thought that they had practiced to think variously and creatively equal 94.59%. Moreover, Students could select the activities by their abilities, skills, and interests happily. They could practice themselves to be in disciplinary and to have responsibility in working. Also, they had evaluated, improved themselves and accepted others, including learned continuously. It was considered as 100%. In addition to the students’ opinions towards teacher’s learning and teaching management, students thought that it was in a very good level or 100%, and students’ satisfaction towards learning and teaching activities showed in the most level or 81.08%.
Introduction

Rationale and Background

According to the Basic Education Curriculum 2008, it focuses on encouraging learner to have 5 capacities is that 1) Communication ability which is the ability of sending and receiving information. It is a culture in language usage to transmit their thought, knowledge and understanding, feeling, and attitude to exchange information and experience which is useful for developing themselves and society, including negotiating to eliminate and reduce problems and conflicts. It also means the selection of information receiving by reasons and accuracy as well as the selection of effective communication method concerning the effects towards themselves and society. 2) Thinking ability which is the ability of analysis thinking, synthesis thinking, creative thinking, considerate thinking and systematic thinking leading to knowledge or information science creation used to decide about themselves and society suitably. 3) Problem-solving ability which is the ability of problem and obstacle solving accurately and properly on the basis of principle of rationality, morality and information science. It is about understanding of relationships and situation changes in society, seeking for and applying knowledge to prevent and solve a problem, and making a decision effectively concerning about the effects towards themselves, society and environment. 4) Spending life skill ability which is the ability of process usage in living in everyday life. It is about learning by themselves, learning continuously, working, and living together in society, including making good personal relationship, managing problems and conflicts suitably, adjusting themselves to keep up with society and surrounding changes, and avoiding unsatisfied behavior affecting to themselves and others. 5) Technology usage ability which is the ability of technology selection and usage and the skill of technology process to develop themselves and society in learning, communication, working, creativity in problem-solving, accuracy and morality (the Ministry of Education, 2008).

From the expectation in capacity of the mentioned curriculum, researchers, teachers in Thai Language Education Area, realizes the importance and value of learner development to have the capacities related to the curriculum stated. Therefore, learning activity is considered and analyzed to develop students to have those capacities. It is found that learning activity by Project-Based Approach will promote and develop students to have capacities mentioned above. Teaching by Project-Based Approach is learner-centered learning process. The values of thinking teaching by Project-Based Approach are the following: 1) learners develop their 8 wisdoms or multi-wisdom. 2) Students develop their left and right brains. Left brain emphasizes on memorization, analysis, division, while right brain focuses on overview, synthesis, aesthetic, creative thinking. 3) It is proactive development which focuses on learners’ interests, abilities, potentiality leading learners to learn enthusiastically. 4) It develops learners’ capacity in thinking to have the way they learn like a researcher and to learn throughout their lives. 5) It develops evidence showing the understanding sustainably. Doing a project is the creation to have work and product which are the evidence showing the understanding sustainably. It is the deep understanding and can be adapted knowledge to use. It is considered as meaningful learning and also the strategy letting students use thinking process which consists of the steps called scientific method used to create knowledge or invention by themselves according to knowledge creation theory which focuses on finding knowledge by Discovery Method or Inquiry Method. New knowledge, invention or new method getting from project is new knowledge of learners and it is a new experience for the advisor and other people. Therefore, doing a project is thinking...
development method. It is teaching method letting students use knowledge from their
education area to manage in step-by-step to solve the problem or find the answer, write a
report including publish the work. It is also the integration learning management. How
much learners get the opportunity to think depends on types of the project, offering
learners a chance to do by themselves, learning by themselves, making them understand
and know deeply (Pimpan Dechakoop and et al., 2008)

Thai Language Education Area sets the standard in each substance as follows:
Standard T1.1: Using reading process to create knowledge and thoughts which are used to
make a decision, solve the problem in everyday life, and read with love. Standard T2.1:
Using writing process to write for communication, write an essay, summarize and write in
different ways, write the information science report and study report effectively. Standard
T3.1: Learners can select to listen and watch judgmentally and speak to show knowledge,
thought, and feeling in different occasions judgmentally and creatively. Standard T4.1:
Learners understand the nature of language and Thai language principle, language change
and power, level of knowledge, and preserve Thai language as the property of the
country. And Standard T5.1: Learners understand and share the opinions, criticize Thai
literature valuably and apply it to real life. From the standard curriculum set, it shows that
teachers can use learning activity by Project-Based Approach to help learners achieve the
qualification of the curriculum standard.

From the benefit and value of project activity towards students, researchers are
interested in learning activity development of Thai Language Education Area in grade 1
level by Project-Based Approach and in studying the opinions of students towards
learning activity of Thai Language Education Area by Project- Based Approach. It is
expected that the result of this study will be a part of the development of learning and
teaching and quality of the students to have knowledge, ability in communication,
problem-solving thinking, technology usage and good life in the future.

The Objectives of the Study
1. To study the result of learning activity of Thai Language Education Area in
grade 1 level by Project-Based Approach.
2. To study the opinions of grade 1 students at Demonstration Khon Kaen
University School (Suk Sa Sart) towards learning activity of Thai Language Education
Area by Project- Based Approach.

Definition of Terms
Project means the activity offering students the opportunities to study and find out
new knowledge by scientific method under teacher’s control and advice. Both students
and teachers have never known or experienced that new knowledge.

Sample
Sample is 37 grade 1 students having student no. 1-37 of room no.1 (Unit A1) at
Demonstration Khon Kaen University School (Suk Sa Sart), first semester in academic
year 2010.

Variables
1. The result of learning activity of Thai Language Education Area in grade 1 level
by Project-Based Approach
2. The opinions of grade 1 students at Demonstration Khon Kaen University School (Suk Sa Sart) towards learning activity of Thai Language Education Area by Project-Based Approach

**The Instruments**

The instruments used in this research include:
1. Learning plan of Thai Language Education Area in grade 1 level by Project-Based Approach
2. Project evaluation form
3. Questionnaires about grade 1 students’ opinions towards learning activity of Thai Language Education Area by Project-Based Approach.

**Data Collection**

Researchers collected data using learning activity by Project-Based Approach in Thai Language Education Area in grade 1 level, first semester in academic year 2010. It was operated as follows:

1. Researchers managed learning activity of Thai Language Education Area in grade 1 level by Project-Based Approach according to 7 learning management plans teaching in 15 periods, 50 minutes/period in the following:
   - Learning management plan 1: Orientation 1 period
   - Learning management plan 2: Basic knowledge of Thai language project 1 period
   - Learning management plan 3: Thai language project analysis 1 period
   - Learning management plan 4: Question and topic selection in doing a project 1 period
   - Learning management plan 5: Thai language project framework writing 2 periods
   - Learning management plan 6: Thai language project management 6 periods
   - Learning management plan 7: Thai language project exhibition arrangement 3 periods
2. After finishing project, researchers evaluated student projects in 5 items, 6 points/item, total 30 points as follows:
   1. Creativity
   2. Group process
   3. Benefits
   4. Project
   5. Project presentation
3. Rubrics scoring was used to evaluate and then the data was analyzed by statistical method.
4. Questionnaires were distributed to students asking their opinions towards learning activity of Thai Language Education Area in grade 1 level by Project-Based Approach.
5. Questionnaires were analyzed by statistical method.

**Data Analysis**

1. Statistics Used in Data Analysis
   Statistics used in data analysis was basic statistics: percentage, mean (X) and standard deviation (S.D.).
2. Data Analysis Method
   Data was analyzed by summarizing the result from data analysis as an essay.
Discussion

The result of learning activity of Thai Language Education Area in grade 1 level by Project-Based Approach showed that students passed the project evaluation criteria 60% equal 100% which their projects’ mean point was 25.75 out of 30 equal 85.83% which had the value of standard deviation (S.D.) as 2.32. When analyzed project mean point into 5 aspects, it showed that they got mean point as 5.65 or 94.16% for creativity, 4.51 or 75.16% for group process, 5.84 or 97.33% for benefits, 4.68 or 78.0% for project, and 5.08 or 84.66% for presentation. It was concluded that mean point of students’ projects passed the criteria (60%). In addition, the result from the opinions of grade 1 students at Demonstration Khon Kaen University School (Suk Sa Sart) towards learning activity of Thai Language Education Area by Project-Based Approach showed that students thought that they got the direct experiences from doing Thai language projects. They had practiced so much that they could find out their skills and methods. Also, they had done the activities in exchanging and learning from the groups, and had been encouraged to find the answer for each problem. In addition, they had searched and collected the information and eventually found out the knowledge by themselves. It was considered as 97.29%. Students also thought that they had practiced to think variously and creatively equal 94.59%. Moreover, Students could select the activities by their abilities, skills, and interests happily. They could practice themselves to be in disciplinary and to have responsibility in working. Also, they had evaluated, improved themselves and accepted others, including learned continuously. It was considered as 100%. In addition to the students’ opinions towards teacher’s learning and teaching management, students thought that it was in a very good level or 100%, and students’ satisfaction towards learning and teaching activities showed in the most level or 81.08%.

From the study, students passing project evaluation criteria 60% considered as 100% could show that it was related to National Education Act B.E.2542 (1999) and Amendments Second National Education Act B.E.2545 (2002) section 22 stating that education management has to stick that every learner has his own ability to learn and improve, and learners are the most important. Education management process has to promote learners to be able to improve naturally and potentially (The Office of Nation Education Commission, 2002). Learning activity of Thai Language Education Area in grade 1 level by Project-Based Approach was learner-centered learning management reducing teachers’ roles from the lecturer to learning process manager. Researchers managed learning process activity regarding section 24; that is, manage contents and activities conforming to interests and learners’ skills. Student was a person who chose the content and subject conforming to liking and interest. For example, group1 students were interested in [U:] sound, Thai dessert, so they decided to do a project in a title of “Let’s find [U:] sound in Thai dessert.” Students in group2 would like to learn about [a:] sound and loved to play with friends, so they did a project in a title of “Friends…I visit [a:] sound.” Students in group3 loved to play in a playground and were interested in [a:] sound, so members decided to do a project in a title of “Have fun with playthings having [a:] sound.” Group4 students enjoyed learning [a:] sound and were interested in teachers in the school, so they did a project in a title of “Teacher…I visit [a:] sound.” Group5 students liked to read fables and studied [I:] sound, so they chose to do a project in a title of “Survey [I:] sound from fables” which they searched and chose by themselves. Students in group6 liked animals, loved to go to the zoo and studied [a:] sound, but if they could not study all animals in the world. Therefore, they decided to study freshwater fish and named their project as “Ask for beautiful fish in the fresh water.” If they wanted to
name their project more perfectly, it should be changed as “Ask for [a:] sound from beautiful fish in the fresh water.” Students could practice their skills such as communication skill. Some groups had to interview people to collect the data. For example, group3 students interviewed the officer, whose responsibility was taking care of the playground, about the names of playthings. For thinking skill, thinking process, and analysis practice, each group had to classify and separate vowel sounds from words or the information they studied. In management, each group gave their members responsibilities to collect the data. Group1 asked their friend take Thai dessert pictures in the books. Another wrote desserts’ names, cut and stick the pictures in the data conclusion sheet, etc. Students faced the real situation and adapted their knowledge to prevent and solve the problems. They also learned from real experience, practiced to do it, thought, loved to read, and, finally, learned continuously. Researchers managed learning and teaching by combining many kinds of contents, including educating morality, good value and desired characteristics. After finishing doing a project in each period, students had to help each other collect waste paper or trash remaining from project decoration. Students kept their project and equipments in the group baskets and returned them to teachers. In doing a project, researchers promoted and arrange the atmosphere, environment, learning media and facilitate learners to learn and have knowledge. Students did a little research which was a part of learning process. It was the learning management which could occur anytime and anywhere. They could do a project in the morning before singing the national anthem, at lunch time and in the evening after class. If some groups wanted to search the information from the Internet, teachers let them use the computers. In coordination with parents and people in the community, in order to develop learning potentially, researchers invited parents and communities to visit Thai language project exhibition of students. In front of the flagpole, the representative of students invited all students to visit the exhibition. It interested parents and a lot of students. Because of this, it made students proud of themselves and their works. They could answer the questions about their project leading them to practice the presentation and knowledge explanation skill.

For the opinions of the students, they accepted that doing a project made them practice to think variously and creatively conforming to the research of Sutinee Rattanasri (2008), Suthathip Sutnongbua (2002), Nattapong Chaladyam (2004). They were found that project promoted learners to have creative thinking. For this project, after analyzing, it was found that students achieved the index in learning aspects developed by Learning Reformation Subcommittee, The Office of National Education Commission (2000) which has 9 indexes

In conclusion, Thai language learning activity by Project-Based Approach was the development of students to get thinking skills, identify problems, design, collect data, analyze data, communicate, and conclude the results. Moreover, students could find out new knowledge by themselves. It was concluded that it was Thai language learning management by learner-centered approach and potential learner development.

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Learning Achievement, Retention and Science attitude of the ninth grade students on electricity using BSCS 5E Instructional model associated with Scaffolding Strategies

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ABSTRACT

The purposes of this pre-experimental research were to study the outcome using BSCS 5E Instructional Model associated with scaffolding strategies of the ninth grade students on electricity 1) achievement of the ninth grade with school criterion specifying 70% of total scores and the number of students more than 70% of total number of students passing criterion as 70% 2) the retention of student learning 3) compare science attitude of students between pretest and posttest. The sample was consisted of 30 ninth grade students in Siosillapasart school, during the semester of the 2009. The instruments used in this research were 1) 11 lesson plans. 2) the 40 items learning achievement test. 3) the 30 items science attitude test. The statistics used for analyzing the collected data were percentage, mean and independent t-test.

The results of the study were as follows: 1) there were 17 students passing the specified criterion of 70% of total scores and the percentage of students passing specified criterion by school was 56.66, as lower than goal. However if included missing data of 8 students who were always absent, the percentage of students passing specified criterion increased to 77.27%. 2) The students retained their improvement after 2 weeks follow up. 3) The average score of science attitude at posttest was significantly higher than that at the pretest.

Keywords: BSCS 5E Instructional Model, Scaffolding strategies

Introduction

In the present and future society, we see that the science into a critical role because science is involved with all our lives. In both daily life and various careers. Equipments and products that people use to facilitate everyday life and work. All as a result of scientific knowledge, Combined with creativity and other fields contribute to scientific knowledge, knowledge and understanding of many natural phenomena, result in significant technological development. On the other hand, technology is a very important part, to the study of scientific knowledge continue unceasingly. Science has developed to make people think and the idea of rationality, creativity, critical thinking skills, critical review of the knowledge, have the ability to solve problems systematically, can decide, using a variety of information and testimony to review. (Department of Education, 2544)

Ministry of Education has determined the quality of students learning science subjects at the end of basic education 12 years in part that Students can use the process of quest for knowledge, process problems in learning science with a real act, used in everyday life, are learning more attention and guidance of teaching science to students who focus on process thought to act as a research system with a variety of activities; Both activities,
field observation and survey review. In laboratory experiments, the search of primary sources and secondary in those activities, has the ability to seek knowledge, have the ability to solve problems by scientific methods, thinking processes to develop solutions. And expect that the learning process will enable students to develop scientific attitude in the ethics of science creatively. The attitudes and values appropriate to the science and can communicate and collaborate with others effectively. (Ministry of Education, 2546) The important factors is promote the development of science teachers to have knowledge of the content and accurate. Hope to change the behavior teachers teach from the transfer of knowledge is focused on teaching learning process with student-centered learning. (Institute for the Promotion of Teaching Science and Technology, 2548)

Reports from the National Educational Test (O-NET) of students in third grade science of Siosillapasart school during the semester of the 2009. The study found that the mean of the test is lower than the average minimum Commission on Basic Education (Office of Basic Education) defined. That is, students with average test results in scientific courses was 32.45 percent which is lower than the average level of the Office of Basic Education (Office of Basic Education) is 39.44 percent. (http://www.niets.or.th) And the conclusion of the external evaluation of the educational level of basic education of Bureau of Standards and Quality Assessment. (ITD) of Siosillapasart school. Udon Thani Educational Service Area Office 2 on 2007. Evaluation found that the quality standards of learning standard five students with knowledge and skills required in the course of a moderate level (mean 1.25). The recommendations from the evaluation suggested that students should be developed in academic achievement in subjects that remained under the Thai, Science, Mathematics and English. (Sio Sillapasart School, 2549)

From the observation of learning and learning science subjects of Siosillapasart school, the instructors were responsible. Most students will test the characteristics of graduates and students do not have low academic achievement; especially Learning Unit 3 Electricity. Due on electricity it's complicated. Some of the content is abstract and difficult to understand the calculation of operating a large trial. Students do not understand the process of experiment, can not remember the content. Therefore affect the students have low academic achievement.

The management will make science instruction according to the education of the National Education Act BE 2542 Section 22 indicated that Stating that “learning principle” that students must all have the ability to learn and develop themselves and students considered most important. Teaching and learning processes must encourage learners to develop naturally and full potential. " The process of learning science is a process that students must check queries seeking exploration and research with different methods and make the students understand and know that perception significantly. In order to build knowledge of the students themselves. And store the information in the brain long. The students will create intelligence, Be processed, Particularly diverse, Quest for knowledge processes. The process of learning how these guidelines is to learn from teaching activities by BSCS 5E model of teaching presented by educators group BSCS. (Biological Science Curriculum Study) Called the 5E Instructional Model to the quest for knowledge has five steps, the details of each step are important. (Referred to in Napapan, 2551).

1. Engage. (Engagement)
2. Explore and find. (Exploration)
3. And to explain conclusions. (Explanation)
4. Elaborate. (Elaboration)
5. Evaluate (Evaluation).

We can see that the teaching of the BSCS 5E model of teaching and learning activities that students will need to process queries seeking review and survey research with a variety of methods. And a learning process that learners participate in learning activities at all times. Provide opportunities for students to practice thinking training practice note provides training analysis review. Practice creating knowledge. The teachers are guides governing consulting assistance is encouraging prompt encourage students think and learn by yourself included Exchange and learning. And make students understand and know the perception is very meaningful to be able to build a student's own knowledge and information stored in the brain for a long time. (Napapan, 2551) In addition Napapan (2551) also found that students taught by BSCS 5E model of academic achievement in biology on the treatment of the equilibrium cell Higher than those taught with traditional method. Moreover, the behaviors involved in learning than students using the traditional method.

And Research Nanthaka (2547) have studied the effect of teaching activities by the BSCS 5E model of academic achievement and scientific process skills of the seven grade students, found that students with higher academic achievement prior to statistical significance at the .05 level and Narongdej (2547) to compare the patterns of teaching and learning cycle and form. IPST. the more basic scientific process skills and scientific attitudes of the eight grade students. The results showed that students in the experimental group. The average basic science process skills after learning more, from pre statistical significance at the .05 level and scientific attitude than the control group.

Scaffolding strategies is process is one person with knowledge rather than (parents adult friends) are helping people with less knowledge than to know how to solve or understand the problem. Scaffolding strategies is Concepts from Vygotsky's ideas about the development of the area (Zone of Proximol Development or ZPD). Bruner (1977 refers to Joseph S. Krajcik et all., 2003) noted that the Scaffolding strategies that people with knowledge rather than to control the appearance of the tasks of intelligence. Which exceed the ability of the learner enable students to participate in activities Intelligence. In the first activity that students do not understand fully complete.

Scaffolding strategies are several characteristics such as to make it look as an example. Teaching or training, Sequencing, Reducing complexity, Making critical feature and Using Visual Tool. (Krajcik et all., 2003).

Chang et all. (2002) said Scaffolding strategies are provided to students as individual learners through the ZPD. And Olson and Pratt (2000) said that Scaffolding strategies is more than capable of providing support or guide the development of students. Scaffolding Strategies concluded that the process allows the students to learn more or to solve the problem. And a task successfully. Based on who has more knowledge help recommended that participants have to successfully create concepts or parts that do.

The findings of Chang et all. (Chang, Chen, and Sung, 2002). To test the learning of the concept mapping strategy using three methods of Scaffolding Strategies. The results showed that students can show understanding and to create a conclusion through concept mapping, and writing samples with concept mapping using Scaffolding Strategies to create understanding and build better conclusions than those that do not use Scaffolding Strategies.
From principles and reasons. Including the results of the foregoing. Researcher believes that the BSCS Model is a form that will help in development of academic achievement, Retention of learning and scientific attitudes of learners. But an inquiry model of teaching knowledge that has some weaknesses in teaching that is a quest for knowledge may require more time learning the material behind the scope. Moreover, teaching a quest for knowledge. Is a form of teaching that emphasize the role of almost all students in learning concepts and concluded. The role of teachers is just the convenience only; Make some difficult tasks may exceed the capabilities of students if done alone. Students may also have errors in the conclusions. Because communication of students and experiences of different students (Yaowalak, 2549). Enabling the researcher interested in the Scaffolding. Strategies to use associated the BSCS 5E instruction model the development of academic achievement, Retention of learning and scientific attitudes of students.

The purposes of Research

1. To study the learning achievement of the ninth grade students on electricity using the BSCS 5E instructional model associated with scaffolding strategies against the criteria targets the school set than 70 percent of the score and the number of students passing hundreds, all 70 students each.
2. To study the retention of student learning of the ninth grade students on electricity using the BSCS 5E instructional model associated with scaffolding strategies.
3. To compare scientific attitudes before and after learning of the ninth grade students on electricity using the BSCS 5E instructional model associated with scaffolding strategies.

Methodology

This research study is not one type of testing (Pre-Experimental Research) This type of research study two forms.

Form of case study to test the first time a group with experimental group (One-shot Case Study) (Jariya, 2525) with the objective of research in Article 1 and Article 2, which has the following format.

\[
\begin{array}{c}
X \\
O_1 \\
O_2 \\
\end{array}
\]

X is treatment by the BSCS 5E instructional model associated with Scaffolding strategies

O1 is mean achievement after learning of the sample means of measuring

O2 is retention in learning when the sample period over two weeks.

And type One Group Pretest-Posttest Design with Article 3 The objective of the research model.

\[
\begin{array}{c}
O_1 \\
X \\
O_2 \\
\end{array}
\]

X is treatment by the BSCS 5E instructional model associated with Scaffolding strategies

O1 is a pretest to measure the scientific attitude of sample

O2. is a posttest to measure the scientific attitude after learning samples.

Research Instrument.

1. Lesson plans for the BSCS 5E instructional model associated with Scaffolding strategies of the plan for 15 hours 11 hours 60 minutes per week, including five three-hour weeks.
2. An achievement on multiple-choice type of electricity is the fourth of 40 items selected by the researchers created.

3. A scientific attitude. Metric estimation is generated by means of Likert method (Likert's Scale) were analyzed in 30 items.

**Data collection and data analysis in research.**

The study was performed to collect the data themselves. The details are as follows:

1. The samples do scientific attitude pretest pre BSCS 5E instructional model associated with Scaffolding strategies.

2. To teach students with a form of BSCS 5E instructional model associated with scaffolding strategies in conjunction with the lesson plans provided by the second week of the 11th plan takes two hours per hour, respectively, and a total of 15 hours.

3. At the end of teaching in the last week. Researcher to the samples do the achievement test. Take the time to do the test 60 minutes.

4. The attitude to scientific research by the student sample to test the scientific attitude. After doing an achievement one day take the time to do the test 30 minutes.

5. The samples do an original achievement. After over two weeks to measure retention of student learning samples.

6. Make an achievement posttest. The scores obtained analyzing data to determine percent.

7. Assess the scientific attitudes of those samples. The students take the test sample finished the scoring.

8. For the sum of the scientific attitude scores before and after learning the patterns with the BSCS 5E instructional model associated with Scaffolding strategies.

9. The overall interpretation that the science attitude compared using the criteria established by the researcher. By creating the concept of Teerawut (2542).

10. The rate from the experiment after learning the BSCS 5E instructional model associated with Scaffolding Strategies against the criteria set forth through the 70 percent of the score and the number of students passing 70 percent of all students.

11. The score from an achievement to do the analysis to find two different points of the achievement made at a time to determine the retention of student learning. The test, t-test for independent groups that are not related to the variance of the population equally (Pool variance sample t-test). By testing the mean posttest examinations. And an average of 2nd test if the test results indicate no significant difference in the retention of student learning.

**Finding from Research**

The results showed that: 1) Number of students passing 70 percent. Up and pass 70 percent of the total number of 17 students. 56.66 percent of people think the percentage of students who pass less than 70 and not defined goal of the research hypothesis is shown in Table 1.
Table 1 Show the result of calculating average and standard deviation of science classes’ achievement on electricity for the Ninth Grade students through BSCS 5E instructional model associated with Scaffolding Strategies.

<table>
<thead>
<tr>
<th>Number of student</th>
<th>Total scores</th>
<th>Minimum required scores</th>
<th>Number of students passing minimum required scores</th>
<th>Percentage of students passing minimum required scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>40</td>
<td>28</td>
<td>17</td>
<td>56.66</td>
</tr>
</tbody>
</table>

2) The Ninth Grade students being in a class of electricity through BSCS 5E instructional model associated with Scaffolding Strategies had retention as stated in table 2

Table 2 Show the result of analyzing retention of the Ninth Grade students’ learning on BSCS 5E instructional model associated with Scaffolding Strategies

<table>
<thead>
<tr>
<th>Score of learning achievement</th>
<th>Number of student</th>
<th>Total of score</th>
<th>$\bar{X}$</th>
<th>S.D</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>posttest</td>
<td>30</td>
<td>40</td>
<td>28.07</td>
<td>3.03</td>
<td>2.11</td>
<td>0.043</td>
</tr>
<tr>
<td>Posttest period over two weeks.</td>
<td>30</td>
<td>40</td>
<td>28.20</td>
<td>2.94</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P*<.05

3) The Ninth Grade students learning on electricity though BSCS 5E instructional model associated with Scaffolding Strategies gained a higher scientific attitude- posttest than pretest in a significantly statistic of .05 as stated in table 3

Table 3 Show a comparison of scientific attitude test average scores between pretest and posttest on a subject of electricity though BSCS 5E instructional model associated with Scaffolding Strategies.

<table>
<thead>
<tr>
<th>Testing</th>
<th>Total of score</th>
<th>$\bar{X}$</th>
<th>S.D</th>
<th>percentage</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>150</td>
<td>100.30</td>
<td>17.68</td>
<td>66.87</td>
<td>59.31</td>
</tr>
<tr>
<td>Posttest</td>
<td>150</td>
<td>116.13</td>
<td>10.72</td>
<td>77.42</td>
<td></td>
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</tbody>
</table>

P*<.05

Discussion
The numbers of students who passed the minimum required scores of 70% was 17 which was 56.66% of all students. The percentage of 70% passed students was lower than expect target and did not stand to research assumption. This might be a result of unsufficient frequency or a lax of time that the students did not require in scaffolding
strategies accompanied with BSCS 5E teaching. These were what the teacher had to make an unconcerned decision. And the study showed that some of the sample students were often absent (8 of them) but these particular students took part in the retention test for learning achievement resulting for an unsatisfying achievement of expected level. These students had been absent very often since eight grade and been so in every classes. In case the author does not enclose their learning achievement from all students, the 70% passed student will be only of 17 from the total of 22 which was 77.27% and exceeded the minimum required level and was in line with the research assumption. As the author was teaching in a class he came to a fact that most students had good relationship with their friends and teacher. Learning mostly occurred after the students had conversed with friends and teacher. The activities that prompted their learning was of the teacher’s questions having scientific pattern that need rational, for example, why or how, which was of the scaffolding strategies used simultaneously with BSCS 5E. The way the students were able to explain what had happened by means of scientific knowledge, that will make them create scientific generalization and were able to extend their knowledge including apply knowledge to the situations in daily life. This will bring students to more understanding of the nature of science. Also it would result in a better understanding in learning affecting the learning achievement expected by us all. It’s foreseeable that it was in line with National Research Council saying the pattern of staying an instruction of BSCS 5E helped develop their knowledge of important area, giving scientific reasons, an insight into complex tasks and helped develop an understanding of the nature of science and capacity of team working.

Lawson (1995 referred in Rodger W. Bybee, 2006) found that learning style of knowledge investigation could enhance reason giving of science. Rodger W. Bybee found that learning style of BSCS 5E could activate scientific reason giving and help the student think systematically with higher achievement. Pimpan Dechakupt and Payoaw Yindeesuk found that learning style of knowledge investigation was an intellectual development that help create notion to the students and could be applied in daily life. Wilson and his folk found that learning style of BSCS 5E rev up students’ achievement in a higher level than another groups’ statistically significant. Besides outcome of BSCS 5E learning was in line with sequential ordering processes of the student in accord with Nantika Kantiyong, Napapan Iamsunmuong who found that learning style of BSCS 5E resulted in higher achievement than common style. In addition, Chang and folk who experimented a mind map style of 3 ways through scaffolding strategies. The results showed that Students can show understanding and to build conclusions on concept mapping. And samples of written concept mapping with scaffolding strategies used to build understanding and create better conclusions than those that do not use the scaffolding strategies. And Cindy E. Hemo-Silver et all. (2007) studied with scaffolding activities and academic achievement in the form of teaching using problem-based inquiry and knowledge. The results showed that the scaffolding activities to help us focus on steps to find out. To do complex tasks. Understand and reduce the excess. In addition, Douglas P. Newton (2002) also found that activities that supplement learning activities scaffolding for the students. Particularly strategic scientific questions of teachers. Enable students to scientific reasoning. And make students understand key concepts that affect student achievement higher.

2) The ninth grade students of study on electricity by using BSCS 5E instructional model associated with Scaffolding strategies had retention. This is consistent with the hypothesis. The results of this study was probably caused by the activities of learning.
quest for knowledge. Students are encouraged to help clear the concept more. Broader. By providing students opportunities associated with new issues. New situations. To enhance understanding of the survey. Students to exchange ideas. Information with friends. (Yoawalak, 2549) And according to the federation and the Pimpan and Payao, 2548) mentioned the activities of teaching a quest for knowledge. Remember to allow for knowledge and associated knowledge are taken. Resulted in the retention of student learning. And Douglas P. Newton (2002) showed that the activities to supplement learning activities for students with specific scaffolding strategies for scientific question of teacher enable students to scientific reasoning. Strategies include defining clear terms of teacher. The student understands the major concepts and understanding to create a fitting time students. However, analysis of data from the retention of student learning. The research found that most students learn the score after the second time (the period over 2 weeks) of test scores after students first. This may be due to students remember the same answer. Therefore, the retention rate of learning could be due to the understanding of concepts and remember the answer to the test after school.

3. The Ninth grade students of study on electricity by using BSCS 5E instructional model associated with Scaffolding strategies had a scientific attitude scores after learning than before the study is statistically significant at the .05 level. This is consistent with the hypothesis. And consistent with the learning activities of the research found that on activities for students to seek self-knowledge in the classroom anyway. When students can not be recommended by their activity, while activity. As the student activities; Teachers held a positive learning environment and encourage students to express the nature of the scientific attitude for example, teachers ask students during learning activities to the conclusion that good students should do some people have said to try at least three times before to ensure results. Or some students said, Summary information will be sufficient to cover and that entails. The teachers also help students concluded again that and to any conclusions on data collected should be sufficient to conclusions before the stories, This can be seen that teachers can promote students to the nature of a scientific attitude through learning activities. This is consistent with Pimpan Dechakupt and Phayoa Yindeesuk (2548) found that the activity of teaching a quest for knowledge to help students develop a scientific attitude.

Moreover, Douglas P. Newton (2002) also found that activities that supplement learning activities scaffolding for the students especially the teacher's questioning strategies to help guide students in making parts when students can not do. Explaining the nature of cause and effect of what happened; Students will be able to have scientific reasoning; Accept cause and effect of what happened, Thirst for knowledge and interest in learning more science. As well as the attitude is more scientific. This is consistent with Jongkolrat (2544) to compare achievement and attitudes by teaching a learning cycle and teaching were normal found that, Students who were taught by a learning cycle, The achievement posttest than the pre statistical significance at the .05 level, And attitudes toward science than students who were taught the usual significance level 0.05.

And Narongdej (2547) to compare the patterns of teaching and learning cycle model and IPST. The more basic scientific process skills and scientific attitudes of the eight grade students. The results showed that students in the experimental group had average scores in science process skills after learning the basic increase From pre statistical significance at the .05 level and scientific attitude than the control group.
Acknowledgement

This thesis has success with the support and advice layout ideas, principles, methods and tools to do data collection of research extremely well from Assistant Professor Dr. Wancharee Mungsing Chief Advisor., Assistant Professor Dr. Phairoj Teunntachartpong and Associated Professor Chaweewan Narakol as counseling to better improve the duration of operations research. This research is more sentimental. Therefore all the gunwale thank teachers take this opportunity with, Thank Assistant. Lheing Satatikun Assistant. Sumit Thimpanja and Miss Supaporn Shinpai research experts, please check sacrifice time research tool for research. Therefore all the gunwale thank teachers take this opportunity.

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The Administrative Core Competencies of School Administrators affecting the Effectiveness of Small Schools under the Office of Mahasarakham Educational Service Area 3

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ABSTRACT

The purposes of this study were to 1) study the administrative core competencies of school administrators and the effectiveness of small schools under the Office of Mahasarakham Educational Service Area 3 2) analyze the relationship between the core competencies of school administrators and the effectiveness in small schools and 3) find which administrative core competencies would be the effectiveness predictors of small schools. The sample used for study was 68 school administrators and 214 teachers from small schools under the Office of Mahasarakham Educational Service Area 3 with the total of 282. The questionnaires were used to collect quantitative data and descriptive statistics included the mean, standard deviation, Pearson Product Correlation Coefficient, and Stepwise Multiple Regression Analysis analyzed by Computer Program.

The Study findings found that for the overall of the administrators’ core competencies in small schools, found that were practiced with the average of “much” level ranking in order from the competency of Achievement Motivation, Teamwork, Service Mind, and Expertise.

For the overall of the relationship between the administrators’ core competencies and the effectiveness of small schools positively correlated in “moderate” level with the statistical significance at 0.01. of which 3 competencies were the best predictors of the effectiveness of small schools ranked in order as “service mind, expertise, and achievement motivation” competencies with the positive multiple coefficient value at 0.511 and The prediction power was 26.10 of percentage with the statistical significance at 0.01 level.

Prediction equation can be drawn in the forms of raw score as well as standardized score as follows:

Prediction equation in the form of raw – scored equation:
\[ Y = 1.489 + 0.190 \times \text{SERV} + 0.282 \times \text{ACHI} + 0.176 \times \text{EXPE} \]

Prediction equation in form of standard – scored equation:
\[ Z = 0.211 \times \text{SERV} + 0.234 \times \text{ACHI} + 0.202 \times \text{EXPE} \]

Keywords: Core Competencies, Effectiveness
1. Background and Significance of the Problem

According to the Ministry of Education implemented the educational reform based on National Educational act 1999, the Revised Issue (the second edition) 2002, as the model laws in education of Thailand. The Standard 4 stated that “the educational management had to be performed so that the Thai people would be perfect human beings in physical, intellectual, knowledge, and moral, and cultural in livelihood. They would be able to live with the others happily, proud of being Thais, had universal knowledge so that they would keep pace with the changes of modern world in modern age, as well as be based on vision of curriculum of basic education 2008 focusing on every student to be balanced human being in physical, knowledge, ethics, awareness in being Thai and Global Citizen, focusing on government in democratic system with the King as a leader. One should have basic knowledge and skill as well as necessary attitude towards studying in higher level, earning one’s living with occupation, and life long education (The Office of Primary Education Commission, 2008). According to National Act of Official Teachers and Educational Staffs 2004, it determined the school administrators were specified in position of academic attainments with revenue, as well as recognized by people both inside and outside society. Therefore, whether the educational management in schools would be successful or accomplish goal with the most efficient and effective, it was based on persons with knowledge and competency as well as desirable characteristic in order to lead the organization with appropriate development, and keep pace with social and global changes. According to Section 79, and Standard 80 of the Act of Official Teachers and Educational Staffs 2004 specified that “The Super-ordinates be Role Models for Sub-ordinates, and responsible for developing the sub-ordinates to obtain” so that they would have knowledge, skill, good attitude, virtue and morality, and appropriate professional ethics, for efficient responsibility and progress. It should be based on rational and principle specified by the official teachers and educational staffs.

The Office of Mahasarakam Educational Service Area 3, gave an importance to develop of educational management quality, and policy in developing the educational management quality of school continuously, stimulating the school administrators under jurisdiction to develop themselves for competency in order to apply in efficient and effective work practice as well as prepare for serving the changes. They should be appropriate transformational leaders. For school administrators’ work practice, especially in small sized schools, under jurisdiction of the Office of Mahasarakam Educational Service Area 3, according to O-NET in 2008 school year, in overall conclusion of Primary Education Schools, under jurisdiction of Maghasarakam Educational Service Area 3, including the small sized schools, their learning achievement was lower than national standard. For Pratomsuksa 6 Students’ learning achievement in Thai Language subject with average score = 46.50, Mathematics with average score = 46.18, Science Subject with average score = 55.54. In Matayomsuksa 3, Thai Language Subject, its average score was 39.12, Mathematics = 32.67, Science Subject with average score = 37.68, Social Studies with average score = 41.67, and English Language Subject with average score = 31.49 (The National Educational Testing Institute, 2008). Those students’ learning achievement directly reflected on management process and administrators’ competency which they couldn’t refuse their responsibility. In addition, the conclusions of The Office of National Primary Education Commission, (1999) that the occurred problems in educational management, for example, learning achievement, illiteracy. These problems were from one part of the school administrators’ management.
2. Research Questions

2.1 What were the administrative core competencies of school administrators and effectiveness of small sized schools under the Office of Mahasarakam Educational Service Area 3?

2.2 What were the relationship level of school administrators’ core competencies and school effectiveness?

2.3 Which administrative core competency of school administrators, was predictor of effectiveness in small sized schools, under jurisdiction

3. Research Objectives

3.1 To study the school administrators’ administrative core competencies and effectiveness of small sized schools, under jurisdiction of the Office of Mahasarakam Educational Service Area 3.

3.2 To analyze the relationship between school administrators and effectiveness of small sized schools, under jurisdiction of the Office of Mahasarakam Educational Service Area 3.

3.3 To search for the school administrators’ administrative core competencies, as predictors for effectiveness of small sized schools, under jurisdiction of the Office of Mahasarakam Educational Area 3.

4. Delimitation of Research

4.1 Population: The population using in this study included 82 school administrators and 462 teachers in small sized schools, under jurisdiction of the Office of Mahasarakam Educational Service Area 3. The samples were selected by Simple Random Sampling using Yamane’s calculation formula (1973, cited in Prapaporn Sritrakun, 2007) at confidence level of 95%.

4.2 Studied Variables: The researcher determined 2 variables including the Independent Variable as the core competencies in management based on conceptual framework of the Office of Official Teachers and Educational Staffs (2005) for 4 competencies as follows: 1) Achievement oriented (ACH1), 2) Good Service (SERV), 3) Expertise development (EXPE), and 4) Team Working (TEAM). The Dependent Variables were the effectiveness of small sized schools as follows: 1) the students, 2) the teachers, 3) the management, and 4) the positive relationship of community.

5. Research Methodology

This research was Descriptive Research by using survey as a technique in collecting data for studying the school administrators’ administrative core competencies affecting effectiveness of small sized schools, analyze the relationship between school administrators’ administrative core competencies, and effectiveness of small sized schools, and to search for the school administrators’ administrative core competencies as the predictors for effectiveness of small sized schools, under jurisdiction of the Office of Mahasarakam Educational Service Area 3. The instruments using in this study was the questionnaire of opinion as perceived by school administrators and teachers in small sized schools, under jurisdiction of the Office of Mahasarakam Educational Service Area 3.

Part 1: The respondents’ demographic data, consisted of status, gender, age, educational degree, work period. It was a Checklist.
Part 2: The school administrators’ 4 core competencies, consisted of achievement oriented, good service, experience development, and team working. It was a 5 Level Rating Scale (Boonchom Sri-sa-ad, 2004).

Part 3: The information in effectiveness of small sized schools, consisted of the success as outcome of 4 aspects of school effectiveness including: 1) the students, 2) the teachers, 3) the management, and 4) the positive relationship of community. The questionnaire was a 5 Level Rating Scale (Boonchom Sri-sa-ad, 2004).

6. Conclusions of Findings

6.1 For administrative core competencies of school administrators in small sized schools under jurisdiction of the Office of Mahasarakam Educational Service Area 3, found that the average value in total of 4 administrative core competencies of school administrators in small sized schools under jurisdiction of the Office of Mahasarakam Educational Service Area 3, they were in “High” level. Considering each competency, found that the first 3 orders with highest level of average value raking in order as follows: the achievement competency consisted of average value in “the Highest” level. The second order was the team working including the average value in “the Highest” level. For the good service, the average value was in “the Highest” level respectively. For the competency with lowest level of average value, the expertise development was in “High” level.

6.2 For effectiveness of small sized schools, under jurisdiction of the Office of Mahasarakam Educational Service Area 3, the research findings found that the total of 4 competencies in effectiveness of small sized schools under jurisdiction of the Office of Mahasarakam Educational Service Area 3, the average value was in “High” level. Considering each aspect, found that the first 3 highest order of school effectiveness ranking in order as follows: the school effectiveness in positive relationship of community, the average value was in “the Highest” level. The second order was the management including average value in “High” level, and the teacher aspect in “High” level respectively. For the school effectiveness with lowest level of average value, it was the student aspect including average value in “High” level.

6.3 For relationship between administrative core competencies of school administrators, and effectiveness of small sized schools, under jurisdiction of the Office of Mahasarakam Educational Service Area 3, the research findings found that Pearson’s correlation coefficient between total of 4 core competencies in administrative core competencies and effectiveness of small sized schools, there was significantly positive relationship at 0.01 level. The correlation coefficients were between 0.301 to 0.409 (r = 0.301 – 0.409), the relationship was in “Moderate” level. There was relationship between the good service, and school effectiveness in “The Highest” level.

6.4 For analysis of administrative core competencies of school administrators as predictors for effectiveness of small sized schools, under jurisdiction of the Office of Mahasarakam Educational Service Area 3, the research findings found that there was significant correlation between 3 administrative core competencies as: the good service (SERV), the expertise development (EXPE), and achievement oriented (ACHI). For the team working competency (TEAM), was excluded since there were no significant in the findings from correlation testing.
7. Discussions

7.1 For the school administrators’ overall administrative core competencies, found that the school administrators in small sized schools, under jurisdiction of the Office of Mahasarakam Educational Service Area 3, had their administrative core competencies based on opinion of school administrators and teachers, in “High” level. It was supported by Sarit Rueangkaew’s (2008) findings in the study of administrative core competencies affecting the learning organization of schools under jurisdiction of the Office of Nakonrachasima Educational Service Area 7, found that the administrators had their overall and each aspect of core competencies in “the Highest” level, especially in team working competency. It was supported by the study of Nimit Innok (2008) in the administrators and teachers’ opinion administrative competencies of school administrators in Seechompoo District, under jurisdiction of the Office of Khon Kaen Educational Service Area 4, found that the school administrators had the administrative competency “High” level in every competency.

7.2 For overall effectiveness of small sized schools, under jurisdiction of the Office of Mahasarakam Educational Service Area 3, the research findings found that the small sized school effectiveness in total of 4 aspects including: the students aspect, the teachers aspect, the management aspect, and the positive relationship of community one, it achieved goal in “High” level. It was supported by the study of Sombat Boonkerd’s (2005) study the effectiveness of small sized schools, under jurisdiction of the Office of Srakaew Educational Area 2 of school administrators, including the competency in solving internal problems, development of students to have positive attitude, and competency in adapting and developing the school. The findings found that the overall was in “high” level. It was supported by Palika Nitiprasertkun’s (2004) study in leadership factor and learning organization affecting effectiveness of Primary Schools, under jurisdiction of the Basic Education Commission, in area of East Coast, found that the overall and each aspect of effectiveness of Primary Schools, they were on “High” level, ranking in order as: the competency in solving problem in school, the competency in adapting and developing the school with environment, competency in producing the students to accomplish high level of learning achievement, and competency in developing the students with positive attitude.

7.3 For relationship between the school administrators’ administrative core competencies, and effectiveness of small sized schools, under jurisdiction of the Office of Mahasarakam Educational Service Area 3, found that Pearson’s correlation coefficient between administrative core competencies, and effectiveness of small sized schools in total of 4 competencies, there was positive significant relationship at 0.01 level. The correlation coefficient was between 0.301 to 0.409 ( \( r = 0.301-0.409 \) ), the relationship was in “Moderate” level. It was supported by Wirot Sanrattana’s (2005) study in management in organization with success, the administrators had to be knowledgeable and competent in planning the practice in each mission to accomplish the specified goal, persistent, active, creative in work development by supporting and enhancing the application of innovation for improving efficiency in work practice. In addition, Somkid Bangmo (2000, cited in Sarit Rueangkaew, 2008) stated that the efficient leader competency was the high success of organization for implementing work in order to achieve goal. The various kinds of failure were caused by the lack of efficient leaders as well.
8. **Recommendations**

8.1 **Recommendations for the application of findings**

8.1.1 For the school administrators’ administrative core competencies, they should include total of 4 competencies. Besides the competencies in achievement, good service, team working, the school administrators should have expertise development regularly and continuously in order to motivate their own organizations for the most efficient level.

8.1.2 For the Office of Mahasarakam Educational Service Area 3, it should determine the policy, work plan, project of training, seminar, field trip study both in the country and foreign countries in order to increase their potentiality, vision, and worldview as well as monitoring, following up, an evaluating seriously and continuously.

8.2 **Recommendations for future research**

8.2.1 The Operation Action Research in each core competency of school administrators both core competencies and work field competencies, should be conducted.

8.2.2 The comparative study in core competencies of school administrators in the same size of schools or different sized schools whether there were different in effectiveness or not.

8.2.3 The comparative study in the school administrators’ administrative core competencies in Best Practice School, and general schools.

9. **References**


Development of a Training Package on Graduate Diploma in Teacher Profession Program for Foreign Teachers

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ABSTRACT

This study was R&D research with the purposes to (1) develop a training package on graduate diploma in teacher profession program for foreign teachers; (2) evaluate the learning progress of foreign teachers who were trained with the training package and; (3) evaluate the satisfaction of trainees with the training package. The research sample consisted of 28 foreign teachers who were trained with the training package at the Faculty of Education, Suan Dusit Rajabhat University. The instruments employed for evaluation of the experimental results comprised (1) an achievement test of various contents as determined in the teacher profession program with .86 reliability coefficient; (2) a scale to assess satisfaction of trainees with the training package with .89 reliability coefficient; and (3) a form to record trainees’ learning behavior including problems faced by trainees and their recommendations. Quantitative data were statistically analyzed with the mean, standard deviation, t-test and satisfaction index; while qualitative data were descriptively analyzed with content analysis. Research findings were as follows:

1. The developed training package was composed of the following components: 1) Details on Curriculum of Teacher Profession Program; 2) Foundation of Teaching Profession; 3) Curriculum Development and Instructional Media; 4) Learning Management Science; 5) Evaluation and Research for Instruction Development; and 6) Graduate Diploma Professional Experience.
2. Post – training learning achievement scores of trainees were significantly higher than their pre – training counterparts at the .05 level.
3. Trainees overall satisfaction with the training package, as shown by the overall satisfaction index, was at 87.20 percent.

Keywords: Teacher profession program, Training package, Foreign teacher

Introduction

Teacher profession is not only considered a type of highly respected professions like such other highly respected profession as engineer, architect, lawyer, nurse and veterinarian that render professional services to the public in context of the respective professional environments but also plays a vital role to society and prosperity of the country as follows: (1) Producing good citizens for the country by providing them with basic education that make them become good citizens as anticipated by the country; (2) Developing human resources in response to the economic and social traditions and cultures from generation to generation to preserve and perpetuate the national legacy.

The Teachers and Educational Personnel Council Act, B.E 2546 specifies that the teacher profession be a controlled profession in which its practitioners must possess the teacher’s license before being eligible to perform the teaching function. This specification applies to both Thai and foreign teachers who teach in educational institutions below tertiary level in Thailand. One requirement for foreign teachers to be
eligible for teacher’s license application is that they must have knowledge standards according to the scope of the professional standards that determined by the Teachers Council of Thailand. In doing so foreign teachers who didn’t hold degrees in education they could have successfully undergone training on graduate diploma teacher profession program. The fact that the teacher profession is regarded as a licensed profession signifies a progress in the teacher profession and uplifts the professional standards which would benefit clients to obtain quality education with higher standards and which would also bring trust, respect, honor and dignity in society to the teacher profession and its practitioners. As an institution responsible for providing both pre-service and in-service teacher development programs, the Faculty of Education, Suan Dusit Rajabhat University realizes its roles and function on provision of educational services to foreign teachers teaching in Thai schools to enable them to meet the requirements for teacher’s license. Consequently, it has set a policy to develop one year training program on graduate diploma in teacher profession program for foreign teachers.

In order to fulfill the policy of the Faculty of Education, Suan Dusit Rajabhat University, the research team has developed the one year training program on graduate diploma in teacher profession program for foreign teachers in Thailand. To ensure that the program is effective and feasible for implementation, the research team has decided to develop a training package on graduate diploma in teacher profession program for foreign teachers based on the program and experiment with it in this research project. It is expected that this program, while contributing to turning out more qualified foreign teachers, will significantly enhance the teaching knowledge and skills of practicing and prospective foreign teachers who, in turn, will help raise the level of English language competencies of Thai students and contribute significantly to productive cultural understanding and exchanges that will eventually lead to sustainable peace among nations that share this planet.

PURPOSES OF THE STUDY

(1) To develop a training package on graduate diploma in teacher profession program for foreign teachers.

(2) To evaluate the learning progress of foreign teachers who were trained with the training package.

(3) To evaluate the satisfaction of trainees with the training package.

RESEARCH METHODOLOGY

The development of a training package on graduate diploma in teacher profession program for foreign teachers in Thailand was a research and development study aiming at developing a training package to train foreign teachers who were teaching in Thai school to improve their knowledge and skills according to the standards of teachers’ knowledge as determined by the Teachers Council of Thailand. The developed training package was experimented with foreign teachers who attended the training program organized by the Faculty of Education, Suan Dusit Rajabhat University. The experimentation was conducted in order to find answers to the following research questions:

(1) Are trainees’ post – training achievement scores significantly different from their pre – training counterparts?

(2) To what extent are trainees satisfied with the training package?
Details of research methodology of this study were as follows:

1. The Research Sample
The research sample consisted of 28 foreign teachers who participated in the training program on graduate diploma in teacher profession program organized by the Faculty of Education, Suan Dusit Rajabhat University. They were serving as teachers in international schools, primary and secondary schools in Thailand. All of them were without the teacher’s license as required by the Teachers Council of Thailand. They didn’t hold the degree in education.

2. Research Instruments
The research instruments employed in this study comprised two categories:

2.1 The Treatment Instrument
The treatment instrument was a training package on graduate diploma in teacher profession program for foreign teachers. It comprised the following components, namely Details on Curriculum of Teacher Profession Program, Foundation of Teaching Profession, Curriculum Development and Instructional Media, Learning Management Science, Evaluation and Research for Instruction Development and Graduate Diploma Professional Experience. The total time required for training was 1 year.

A brief description of the contents of each component was as follows:

Details on Curriculum of Teacher Profession Program

This component comprised of the description of the training program as follows:

(1) Name of the Program
The Graduate Diploma in Teacher Profession Program (27 Credits)

(2) Name of the Diploma
The Graduate Diploma in Teacher Profession (G.D.T.P)

(3) Program Philosophy

Suan Dusit Rajabhat University has the determination to enhance the capability of foreigners who are serving as teachers in Thailand to enable them to gain better knowledge and understanding of the principles, methods, and techniques of providing effective instruction; to understand and appreciate the Thai culture and way of life; to possess virtues and code of ethics for teachers; and to be able to apply the knowledge and experiences gained from the program in organizing and conducting instruction effectively and efficiently.

(4) Basic Principles of the Program

(4.1) The program is aimed at developing and enhancing the capacity of foreigners who are working as teachers in various educational institutions in Thailand to enable them to perform their duty as a teacher more effectively and efficiently.

(4.2) The program is practice-oriented, combining theories and principles of good teaching with actual practice in the classroom to facilitate full applicability of the knowledge and skills gained from the program in the real classroom situations.

(4.3) Upon completion of training in the program, the trainees are expected to become professional teachers well equipped with vision, knowledge, and skills necessary for performing teaching duties effectively and efficiently; possessing desirable personality and good teacher characteristics based on virtues and the code of ethics for the teaching profession; gaining insights and appreciation of the Thai culture
and way of life; committed to the guest for knowledge and lifelong learning; and aspiring to be a model teacher.

(5) **Program Objectives**

Based on the above principles, the program objectives are specified as follows:

(5.1) To enable the learners to gain knowledge and understanding of theories, principles, methods and techniques pertaining to teaching and the education process in the Thai setting and to effectively apply this knowledge and understanding in their teaching profession.

(5.2) To develop teaching competencies of learners through actual practice in real classroom situations.

(5.3) To enable the learners to develop themselves to become good professional teachers in Thailand, with desirable personality and characteristics based on virtues, code of ethics for professional teachers, vision, and appreciation of Thai culture and way of life.

(6) **Program Structure**

The program is consisted of five modules each of which comprises a series of learning modules. Upon completion of the five modules learners will earn 27 credits. Brief descriptions of the five modules are as follows:

(6.1) **Structure of Modules**

6.1.1 Core Courses 2 Modules (10 Credits)

6.1.2 Specific Courses 3 Modules (17 Credits)

(6.2) **Details of Modules**

6.2.1 Core Courses

Foundation of Teaching profession (5 Credits)
Curriculum Development and Instructional Media (5 Credits)

6.2.2 Specific Courses

Learning Management Science (5 Credits)
Evaluation and Research for Instructional Development (5 Credits)
Graduate Diploma Professional Experience (7 Credits)

(7) **Guidelines for Program Implementation**

Semester 1
Foundation of Teaching profession
Curriculum Development and Instructional Media

Semester 2
Learning Management Science
Evaluation and Research for Instructional Development
Graduate Diploma Professional Experience

(8) **Trainees Qualifications**

(8.1) Being at least 20 years old
(8.2) Having been teaching in school for at least one academic year
(8.3) Having at least a bachelor’s degree or equivalent

(9) **Screening of Trainees**

Prospective trainees will be screened by an appointed committee that will examine application documents, interview applicants, and announce the list of selected trainees via the website [http://dusithost.dusit.ac.th/~education/](http://dusithost.dusit.ac.th/~education/)

(10) **Program Completion**
Upon completion of the program, trainees who have passed all evaluation criteria of the program will be awarded the Graduate Diploma in Teacher profession which is approved by the Teachers Council of Thailand and conferred by Faculty of Education, Suan Dusit Rajabhat University.

**Training Activities**

1. Lecture
2. Demonstration
3. Simulation
4. Discussion
5. Field trips
6. Learning from electronic media
7. Self – study
8. Professional experience practice in the real classroom etc.

**Foundation of Teacher Profession**

Concepts, philosophies and theories of education; contexts of education; educational psychology; developmental psychology; educational systems of Thailand and foreign countries; vision and development plans for education; and educational quality assurance.

Importance of teacher profession; development of teacher profession; roles, duty, functions and way of life of teachers; and teachership.

The use of Thai and English for communication in instruction and information search; and the use of technology for communication and information search.
Curriculum development and Instructional Media

Curriculum theories; principles and approaches of curriculum development; curriculum implementation and administration; instructional supervision; analysis, evaluation, improvement and development of curriculum; national curriculum and school-based curriculum; learning area curriculum; curriculum for learners with special needs; development of academic projects and learner development activities; guidance and student help-care services; and conditions, problems and trend of curriculum development.

Concepts and theories of instructional media; educational technology and innovations; design, development and uses of instructional media; innovations for enhancement of learning; and learning sources and learning networks.

![Fig.3: A Textbook on Curriculum Development and Instructional Media](image)

Learning Management Science

Instructional psychology; theories of learning; theories of teaching; instructional systems; mainstreaming learning and various learning management types; learning management in response for individual difference and appropriate for learner’s age; learning design and preparation of learner-centered learning management plans; required skills for management of learning activities; production, development and uses of learning media and learning enhancing innovations; teaching practice based on learning management plans; measurement and evaluation of learning outcomes; application of learning outcomes for classification of learner’s knowledge level and instructional development; and application of psychological knowledge and related knowledge for counseling of learners and classroom management.

![Fig.4: A Textbook on Learning Management Science](image)
Evaluation and Research for Instruction development

Concepts, theories and methods of educational measurement and evaluation; construction and uses of measurement and evaluation instruments on cognition, process and skills, and desirable characteristics; performance evaluation; authentic assessment and assessment with portfolios; decision making and reporting on learning outcomes; utilization of evaluation outcomes for development and improvement of curriculum, teaching and learning; and evaluation of projects and activities provided for learners.

Foundation knowledge of educational research; research designs and research project preparation; research instruments and data collection; statistics for research; research synthesis; classroom research; and the use of research process for instructional problem solving, instructional development and learner development.

Fig. 5: A Textbook on Evaluation and Research for Instruction Development

Graduate Diploma Professional Experience
In Curriculum and Instruction

Application of knowledge on teacher profession, management and administration for development of competencies and skills in management of learning appropriate for learners and society; development of good personality and characteristics of teachers; human relationship; management and administration; working with others; social skills; organizational culture; intra-organization communications; enhancement of awareness in virtues and ethics; teacher professional code of ethics; teacher professional standards and education laws; development of good attitudes toward teacher profession; systematic thinking; analytical and synthetic thinking; planning for operation; solving of learner’s and learning management problems; information search skills; leadership; knowledge management; becoming persons of learning; becoming academic leaders; and teacher profession development.

Fig. 6: A Textbook on Graduate Diploma Professional Experience
Six textbooks above each of which provided details of full information on each component were prepared and provided for trainees to read while undergone the training program.

3.2.2 The Data Collecting Instruments The instruments employed in collecting data for evaluation of the experimental results included the following:

1. An achievement test in standards of teachers’ knowledge. This was a 100 – item multiple choice test to assess trainee’s knowledge and understanding on knowledge and competencies for Thailand according to the details that identified in the curriculum of teacher profession program. Its reliability coefficient was .86.

2. A scale to assess trainee’s post – training satisfaction with the training package. This instrument was composed of three parts:
   - **Part 1** was an 9 – item questionnaire an trainee’s personal background
   - **Part 2** was a likert rating rating scale to assess’s satisfaction with the training package and training management. Its reliability coefficient was .89.
   - **Part 3** was an open – ended questionnaire to obtain information in problems faced by trainees and their recommendations for solving problems.

3. A form to record trainee’s learning behaviors during the training. This was a form to record qualitative data on trainee’s learning behaviors and their reaction and responses during the training.

a. The Research Procedure The research procedure of this study consisted of the following steps:

1. The research team developed the details on curriculum of teacher profession program based on specifications set by the Teachers Council of Thailand.
2. The research team developed the training package for the program, including all required training media, documents and data collecting instruments.
3. After the training program and training package had been developed, they have been verified by a team of experts in each component to provide recommendations for improving the training package. Results of the recommendations from the experts were analyzed to determine the efficiency of the training package and to identify points for subsequent improved.
4. The training package was improved based on the recommendations of the experts.
5. After subsequent improvement, the research team conducted field experiment by announcing the offering of the training program via the Internet and mails for foreign teachers teaching in Thailand to apply for the training.
6. A total number of 28 foreign teachers underwent training with the training package. The research design for the field experiment was the One Group Pre – test Post – test Design as shown in the diagram below:
Whereas,

\[ O_1 \times O_2 \]

\( O_1 \) Represents the Pre – test
\( X \) Represents the treatment
\( O_2 \) Represents the Post – test

(7) Data on experimental results were analyzed with the use of following statistics:

(7.1) The dependent t – test for testing the hypothesis : Trainees’ post – training achievement scores were significantly higher than their pre – training counterparts;

(7.2) The satisfaction index for analyzing trainees’ level of satisfaction with the training management and the various components of training package.

RESEARCH FINDINGS

Research findings were as follows:

1. The develop training package was composed of the following components:
   (1) Details on Curriculum of Teacher Profession Program; (2) Foundation of Teaching Profession; (3) Curriculum Development and Instructional Media; (4) Learning Management Science; (5) Evaluation and Research for Instruction Development; and (6) Graduate Diploma Professional Experience

2. Trainees’ post – training learning achievement scores on standards of teachers’ knowledge were significantly different from their pre – training counterparts, with their post – training mean learning achievement scores being significantly higher than their pre – training counterpart at the .01 level.

3. Trainee’ overall satisfaction with the training package, as shown by the overall satisfaction index, was higher than the 80.00 percent level. Their satisfaction with various components of the training package were as follows: at 88.57 percent with the component of Details on Curriculum of Teacher Profession program; at 84.29 percent with the component of Foundation of Teaching Profession; at 82.56 percent with Curriculum Development and Instructional Media; at 86.43 percent with Evaluation and Research for Instruction Development; and at 90.00 percent with graduate Diploma Professional Experience

DISCUSSION

The above – mentioned findings led to the following points for discussion:

1. That trainees’ post – training learning achievement scores were significantly higher than their pre – training counterpart indicated that the training program was effective They may be due to the following factors:

(1) Foreign teachers who were trainees were highly motivated because the training on graduate diploma in teacher profession program was one of the requirements for foreign teachers in order to be eligible for application for the teacher’s license
teaching in Thai schools, as set by the Teachers Council of Thailand. Learners’ motivation was one factor that led the learners to achieve in learning.

2. The training was effectively organized with qualified resource persons provided by the research team.

3. The training package was effective for increasing knowledge and understanding of trainees due to the relevant details in each component as verifying by the experts. Moreover, each component was informative.

2. That trainees were highly satisfied with all components of the training package indicated that the developed training package was enjoyable to study, easy to understand and provided useful information for foreign teachers to apply in their teaching. In addition, learning activities which were organized by the instructors were interesting as well as appropriate.

RECOMMENDATIONS

Based on the research findings and discussion, The research team offered the following recommendations:

1. The developed training package in graduate diploma in teacher profession program should be used as the training package for foreign teachers who don’t hold a bachelor degree in education to be eligible to apply for teachers’ license as determined by the Teachers Council of Thailand.

2. Higher education institution, under approval of the Teachers Council of Thailand, should make use of this training package to carry out the training program on graduate diploma in teacher profession program for foreign teachers teaching in Thai schools.

3. Subsequent implementation of the training package may reveal some points for further improvement and revision in both the component contents and prescribed activities and exercises. Therefore, subsequent improvement and revision of the training package may be necessary in the future based upon results of continued usage.

4. Since this training package uses English as the media of instruction, it may not be fully comprehensible to foreign teachers whose mother tongue is not English. In the future, similar training packages in languages other than English should be developed for those foreign teachers.

5. In the future, qualitative research design should be employed for this study in order to obtain deep information concerning the efficiency of the training package.

6. Feedback information from trainees’ users after completion of the program should be found out for improving the program.

REFERENCES


Expectation of Community Leaders in Nakhon Khon Kaen Municipality toward Desired Characteristics of Students in Learning Strand of Social Studies, Religion and Culture

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ABSTRACT

The purposes of this research were 1) to study the expectation of community leaders in Nakhon Khon Kaen Municipality toward desired characteristics of students in learning strand of Social Studies, Religion and Culture, 2) study for comparing the expectation of community leaders between those who were and were not members of school and 3) study the views toward participatory process of forming desired characteristics of community leaders in Nakhon Khon Kaen Municipality. Sampling group for this research were community leaders from 4 areas of Nakhon Khon Kaen Municipality, which were divided to 88 sub-communities.

Research instruments were interview forms which were divided to 3 parts including 1) interview form for general information of data providers, 2) interview form for desired characteristics of students in learning strand of Social Studies, Religion and Culture through format of check list and 3) interview form for the views toward participatory process of forming desired characteristics and recommendation toward additional expectation on desired characteristics. Data was analyzed through method of basic statistics included frequency discrimination (f), percentage (%), Chi-Square (X²) and summary in essay format.

Research findings were found as follows:

The interview for expectation of community leaders in Nakhon Khon Kaen Municipality toward desired characteristics of students in learning strand of Social Studies, Religion and Culture revealed that:

1. For overview of expectation of community leaders in Nakhon Khon Kaen Municipality toward desired characteristics of students in learning strand of Social Studies, Religion and Culture, it could be ranged from high to less recognition of importance through first five aspects as follows; 55.68% of having public service mind, 51.14% of appreciation of monarchy democracy, 50% of living in peace throughout communities around the world, 46.59% of having moral, and 39.77% of developing oneself to be a good citizen. However, it found no one who realized the importance of desired characteristics in understanding culture of neighbouring countries.

2. A study for comparing the expectation of community leaders between those who were and were not members of school committee could identify the statistical significant difference for 9 from 20 desired characteristics at 0.05 level, which could be ranged from much to less difference as follows; loving local community and nation (p=0.00), having knowledge about own community, Thailand and current situation of the world (P=0.0001), planning life, work and thinking with reasonable and appropriate views (p=0.002), having basic knowledge in Sufficiency Economy Philosophy (P=0.006), having moral (0.017), being energetic learner (p=0.018), be proud to be Thai (P=0.032), doing good thing and benefit for society (p=0.036) and having public service mind (p=0.047).

3. Point of views toward participatory process of forming desired characteristics of community leaders in Nakhon Khon Kaen Municipality were found as follows; behaving oneself as the good role model for all aspects (80.6%), providing activities or training to educate and build awareness of beneficial matters (57.9), support and promoting the participation between government, family and community (28.4%) and forming economic group such as the saving cooperative as the funds for developing community education (13.6%).
Financial Risk Management of Khon Kaen University

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ABSTRACT

The objectives of this research were to first carry out an assessment of financial risk management within Khon Kaen University (KKU) and secondly to propose guidelines for financial risk management within the university. Data was collected using interview forms, questionnaires, and focus group discussions. The collected data was then analyzed by content analysis, tallying the frequency, percentage, mean, and standard deviation.

The research findings were as follows:

1. The overall condition of financial risk management practices within KKU was at a “High” level. Of the five steps it was found that the determination of objective, specification in the risk, and risk management practices were at a “High” level. The follow up and evaluation of the risk practices however, were at a “Moderate” level.

2. The guidelines for financial risk management within KKU included:
   1) the determination in risk management policy, policies and control for the administrators in establishing the guidelines of practice, determination in risk management.
   2) the establishment of a work practice handbook,
   3) a central work unit for counseling, work practice had to improve the process for alleviating risks,
   4) the officer had to be competent in providing the service. The financial and accounting officers should be carefully selected,
   5) that communication provided continuous information by focusing on the importance of risk management, the risk issues that needed to be managed immediately, and the necessary improvement in planning,
   6) the training and mechanisms of implementation risk in human resources for disseminating different kinds of information in risk management, the individual’s responsibility, and support for appropriate practice,
   7) the work unit or those who were responsible for risk management of those carrying out duties to support implementation, support in putting the risk management measures into practice, and competency development in risk management for the officers,
   8) the internal auditor should play an important role in making certain that the organization had efficient and effective internal control in risk management. In addition, when necessary, the internal auditor should recommend improvements to issues that required attention.

Keywords: Financial Risk Management, Khon Kaen University
Teacher behavior and Academic Performance of Third year students in the Selected Catholic Schools in Nakhornnayok, Thailand

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ABSTRACT

This study was to investigate the significant relationship between the teacher behaviors and the academic performance of third year students in the selected Catholic Schools in Nakhonnayok, Thailand.

The respondents of this study are the third year students in the selected Catholic schools in Nakhonnayok, namely: Christasongkroh School, Malasawan School and Joseph Uphatam Nunglee School.

This research used the descriptive correlation method to determine the significant relationship between the teacher behaviors and the academic performance of respondents. It used purposive sampling to obtain data on teacher behaviors and students’ academic performance. The data gathered from the respondents were classified, recorded, tabulated and interpreted using weighted mean, independent t-test and analysis of variance.

Based on the foregoing findings, the following conclusions are drawn: 1. The teacher behaviors in the classroom in terms of task orientation, lesson clarity, instructional variety, engagement in the learning process, and classroom management are often demonstrated by the subject teachers. 2. The overall academic performance of respondents is good. 3. There is no significant difference in the teacher behaviors like task orientation, lesson clarity, instructional variety and classroom management when analyzed according to gender. However, there is significant difference in the engagement in the learning process between male and female respondents. The engagement in the learning process among female respondents is better than the male. 4. The correlation between the teacher behaviors and academic performance of students is negligible. The influence of teacher behavior to the academic performance is very low. There are other factors not covered by this study that influence students’ academic performance.

Based on the foregoing findings, the following recommendations were offered: 1. The school administrators should encourage the teachers to motivate the male students to improve their engagement in the learning process. 2. The school administrators should strengthen their faculty development program to give insights to teachers on how to improve students’ engagement in the learning process. 3. The correlation between teacher behaviors and students academic performance of the respondents in selected Catholic Schools in Nakhonnayok is negligible. The indicators not covered in this study be investigated in the future researches to determine the teacher behaviors that influence students’ academic performance.

Keywords: Teacher behaviour, Academic Performance
Introduction

Research Problem

Educators have pointed out the importance of assisting students in positive behaviors. However, many teachers fail to consider using an assertive communication style and appropriate behaviors to capture the students’ interests in the lessons and to motivate them to learn the subject.

Many teachers discriminate unknowingly- in the questions they ask, the praise they offer, the tasks they assign, and the attention they give. Largely unaware of the implications and consequences of their actions, they act on ingrained attitudes and behaviors. With actions that speak louder than words they are telling some students that they are not as capable as others simply because of their gender, physical and mental abilities and attitudes towards their studies (Shalaway, 1998).

The same author above emphasized that low expectations, poor self-concepts, low self-confidence, low achievement, fewer opportunities and options, conflict, behavior problems- these are the consequences of discrimination based on students’ gender, physical and mental abilities and attitudes towards their studies.

Identifying these problems on teacher discriminatory behaviors, the researcher will conduct this study to determine the significant relationship between the teacher behaviors and academic performance of third year students in the selected Catholic schools in Nakhonnayok. Specifically, this study will aim to answer the following questions:

1. What is the profile of the respondents in terms of the following?
   1.1 gender
   1.2 parents marital status

2. What is the level of teacher behaviors in terms of the following?
   2.1 Task Orientation
   2.2 Lesson Clarity
   2.3 Instructional variety
   2.4 Engagement in the learning process
   2.5 Classroom management

3. What is the level of academic performance of third year students in selected Catholic schools in Nakhonnayok?

4. Is there significant difference in the teacher behaviors and academic performance of third year students in the selected Catholic schools in Nakhonnayok when analyze by the following;
   4.1 gender
   4.2 parents marital status

5. Is there significant relationship between the teacher behaviors and the academic performance of third year students in the selected Catholic schools in Nakhonnayok?

Hypotheses of the Study

Ho1 There is no significant difference in the teacher behaviors in the selected Catholic school in Nakhonnayok when analyzed to according:
   1.1 gender
   1.2 parents marital status

Ho2 There is no significant relationship between the teacher behaviors and the academic performance of third year students in the selected schools in Nakhonnayok.
Objectives of the Study

The main objective of this study is to determine the significant relationship between the teacher behavior and academic performance of third year students of selected Catholic schools in Nakhonnayok. Specifically, it aims to achieve the following objectives:

- Determine the significant relationship between the teacher behaviors and academic performance of students to give insights to teachers on how to deal their students with diverse background in most appealing manner in order to motivate them to study.
- Identify the teacher behaviors that influenced students’ academic performance for guidance of teachers as they practice teaching profession.
- To produce research based data on teacher behaviors to give insights to school administrators on how to handle teachers with different behaviors to improve teaching learning process.

Significance of the Study

The output of this study will benefit the academic personnel, parents and students. Presented below is the explanation on how the beneficiaries glean information.

For the school administrators, the output will provide them insights on designing faculty development program to enhance personality and teacher behaviors to make them more effective teachers.

For the teachers, the results of this study will serve as parameter to improve their behaviors and teaching effectiveness as well. In addition, the findings will help them strengthen and overcome weaknesses in their behavior and teaching performance. It also builds better working relationship between teachers and students, teachers and school administrators.

For the students, the output of the study will improve students’ interest in their lesson for they are handled by the teachers with desirable behaviors. Thus, the students will have increased satisfactions, better attitudes towards school, better self concept and higher graduation rate.

Scope and Limitation of the Study

This study will be limited to third year students of the selected schools in Nakhonnayok Province. The survey will be administered by the researcher herself with the assistance of the classroom teachers.

The study will determine the significant relationship between the teacher behaviors and academic performance of third year students in the selected schools in Nakhonnayok, Province. The findings should not be generalized for lower year levels.

The present study will focus on teacher behaviors which include task orientation, lesson clarity, and instructional variety, engagement in the learning process, and success rate and academic performance of third year students. Therefore, its findings should not be generalized for other attributes not covered by this study.

Conceptual Framework

This study is anchored on the notion of Cruickshank, et al (1999) that student learning is, in part, the result of teacher’s attributes and behaviors. Shown in the paradigm are the teacher behaviors as independent variable and academic performance as dependent
variable. The teacher behaviors have 5 indicators namely: task orientation, lesson clarity, instructional variety, engagement in the learning process and students’ success rate. The academic performance is the General Percentage Average (GPA) of students influenced by the teacher behaviors.

Variables

<table>
<thead>
<tr>
<th>Independent</th>
<th>Dependent</th>
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<tbody>
<tr>
<td><strong>Teacher Behaviors</strong></td>
<td><strong>Academic Performance</strong></td>
</tr>
<tr>
<td>1. Task Orientation</td>
<td>performance</td>
</tr>
<tr>
<td>2. Lesson Clarity</td>
<td>of students</td>
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<tr>
<td>3. Instructional Variety</td>
<td></td>
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<tr>
<td>4. Engagement in the learning process</td>
<td></td>
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<tr>
<td>5. Classroom management</td>
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</tbody>
</table>

Figure 1: Showing the Conceptual Framework of the Study

REVIEW OF RELATED LITERATURE

Presented in this chapter are the related literatures and studies which the researcher considers relevant to the present investigation. The researcher also presents information gathered that have the nearest bearing in this study. The literature may not be very similar to this study, but it shows some relatedness in some aspects.

The related literature presented consist of related studies taken from master’s theses, research papers and other principles and concepts advanced by different educators. Likewise, different authors who discussed their views on and concepts of classroom management were considered, as it is the focus of the study.

Teacher Behaviors

Teachers’ attitudes, whether reflected in skills or in values and beliefs, are all expressed in their behavior towards pupils. According to Karsh and Borich 1999, behavioral expression of attitudes affects the nature of the psychological experiences of pupils in a learning situation. Teacher behaviors as an expression of teacher attitude in
confined to the effect of that behavior on pupils’ self-concept. Silbernman 1994 cited that there are teacher behaviors for teachers attitude towards the pupils first, teacher’s attitude are generally revealed in their action, regardless of attempts to conceal them or circumstances which might disguise them. Second teachers express some attitudes more clearly than others, and pupils are more inclined to accept attitudes of concern and indifference than attitudes of attachment or rejection and, lastly pupils are aware of teacher expressions of attitude toward themselves and others, and these expressions may influence not only the pupil’s perception of itself, but also his perception of other pupils. Teacher behaviors also seem linked to other desirable outcomes for students, such as increased satisfaction and better attitudes towards school, better self concept and higher graduation rates. One of the most exciting things about these findings is that they describe real teacher in real classroom with real pupils (Needels and Gage, 1991). The teachers who have appealing behavior to the students possess the following personal traits:

**Task Orientation.** Task orientation is a direct correlation between the amount of time spent teaching the content and student achievements (Combs, 1997). According to Greenblatt teacher behavior is a businesslike behavior in which the teacher plans his teaching in accordance with his capability and ability to keep the pupils directed toward these. As a businesslike behavior task orientation represents and efficient manner carrying out all activities both inside and outside classroom chores that help pupils to develop efficient work habit. The day plan should be organized in advance and the teacher should develop and orderly plan for formal and informal school activities. The pupils will understand any lack of organization and are appreciative of organized procedures.

**Lesson Clarity.** According to Combs (1997), there are lesson clarity that leads the teachers to less time going over material and more instructional time, first is the teacher does not wander off the topic, second speak at appropriate level for the students understanding and last the teacher must has clear speech patterns.

Wilen, 1991 says the teachers vary considerably on this behavior. Not all teachers are able to communicate clearly and directly to their students with wandering, speaking above students’ levels of comprehension, or using speech patterns that impair their presentation’s clarity. If the teacher teaches with a high degree of clarity, they will spend less time going over material. Their questions will be answered correctly the first time, allowing more time for instruction. Clarity is a complex behavior because it is related to many other so-called cognitive behaviors such as the lesson familiarity and delivery strategies.

**Instructional Variety.** Educators have long believed that instructional variety increases students’ motivation and learning. The teacher used variety in virtually every aspect of their classroom behavior including nonverbal behavior, instructional approaches, classroom organization, questioning, types of assessment and gestures. Rosenshine and Frust (1971).

Jonson (2002) stated that a variety of learning activities keeps students interested in school and their schoolwork. Student interest is a powerful motivator. Students who are interested in what they are doing will enjoy it more, do it longer, and learn more from it. When students are interested and engage in learning activities, they feel more successful, and the teacher have less worry about behavior management and discipline. The author also said that a good way to increase student motivation is to vary your instructional methods. The methods used most of the time by the great majority of teacher such as practice and drill, questioning, lecturing and explaining, and problem solving.
Engagement in the Learning Process. According to Savage (1991), the amount of time the teacher devote to teaching a topic is the time their students will be actively engaged in learning the material. This has been called engagement rates. Engagement rate is the percentage of time devoted to learning when the students is actually on task, engaged with the instructional materials and benefiting from the activities being presented. Even though a teacher maybe task oriented and may provide maximum content coverage, the students may be disengaged. This means they are not actively thinking about, working with, or using what is being presented.

Several authors (Evertson, 1995; Tauber, 1990) have contributed useful suggestion for increasing learning time and, more importantly, student engagement. Their work, recently updated by Emmer et al. (1997) has provided the following suggestion for the teachers to promote students engagement:

- Set rules that let pupils attend to their personal and procedural needs without obtaining your permission each time.
- Move around the room to monitor pupils’ seatwork and to communicate your awareness of students’ progress.
- Ensure that independent assignments are interesting, worthwhile, and easy enough to be completed by each pupil with your direction.
- Minimize time consuming activities such as giving direction and organizing the class for instruction by writing the daily schedule on the board. These will ensure that pupils know where to go and what to do.

This teaching practice has also been found to be beneficial for small groups and independent seatwork (Anderson, 1991).

Classroom management. Classroom management establishes an atmosphere that permits activities to be carried on efficiently and economically. It ensures the wise use of time, efforts and energies of the teacher and the pupils. It spells out careful use of physical facilities of the school. Classroom management includes the sharing of skills, knowledge, attitudes and talents for the welfare of the class. In fact, Calderon (1998), says that activities that would keep the pupils intact and united in terms of classroom activities promote strength between the teacher and the pupils. Lardizabal (1999) said that the good classroom management established a good atmosphere, which permits activities in the classroom to be carried out efficiently and economically. It ensures the teacher’s and the pupil’s time, efforts and energies. Classroom management in one of the situation factors that affect learning. Lardizabal (1999) also stated that classroom management as the administration or direct of activities with special references to problems such as discipline, democratic techniques, the use and care of supplies and reference materials the physical aspect of the classroom, general housekeeping and social relationship with pupils. Pleasant surroundings as a result of good classroom management induce good thoughts and inspire the teacher, the pupils, the people that surround them and the visitors that may come in. this reflects the personality of the teacher handling the class and the pupils being managed. Dunhill (1961) stressed that quality teaching lies in the sound classroom management. The conduct management is refers to the set of procedural skills that teachers employ in their attempt to address and resolve discipline problems in the classroom juts like acknowledgement of responsible behaviors, correction of irresponsible and inappropriate behaviors, ignoring, delaying etc., lastly the covenant management this focuses on the classroom group as a social system that has its own features that teachers have to take into account when managing interpersonal relationships in the classroom just...
like get involved with the students, help the student develop a plan to change behavior and get a commitment from the student to stick to the plan.

From the internet source, classroom management in Montessori setting has different techniques, through a collaborative research consisting of interviewing colleagues, surveying students and observing classroom management. With chart paper and pocket chart, the following methods were employed to established classroom management.

At the beginning of the year, set up the classroom rules and have the pupils take home copy to review with their parents and have both individuals sign this agreement of classroom expectation. This provides the pupils and the parents with the expectations of the classroom.

On a day basis, provide each secondary level with a daily chart that consist of daily itinerants, small group schedule and individual work due for the day. This will provide the pupils with a schedule they can refer to and also make them more accountable for their completed works.

In classroom management, physical condition and materials of instruction are under control. This includes maintains clean and orderly classroom like wise having a flower vase with fresh flowers and assigning some students to provide this can enhance the teacher’s desk. This is one way to display the aesthetic personality of the teacher so with the students under the guidance within the capabilities of both. Ensure classroom is well ventilated and conducive to learning since good lighting facilities and affect the health and learning of the students. it is general rule that the light should come from the left shoulder of the students except for the left handed where the light should come from the right shoulder. Harsh light and dark spots produce eyestrain so classroom should be free from it. (Lardizabal, 1999). , Gives do’s and don’ts rules before starting any class activity, plans and develops activities suited to the need of the learner and ensure fair play in any game and competition just like the teacher will give the policies inside the classroom such as no cheating, encared 9 absences in one semester is totally the student will drop except to those who sick. Daniel,2009 also cited the three F’s which are the (a) foundation (b) field and (c) flow these theory helps the teachers inside the classroom. The Daniel, 2009 also said that one of the strengths of the theory is that it is structured enough to deliver a blueprint for complete management of the classroom while, at the same time, being flexible enough to allow an individual teacher to inject his/her personality into his/her teaching style. Daniel 2009 also added that this classroom management theory may prove quite useful to administrations who are striving to standardize classroom teaching practices within schools or school districts.

**Academic Performance**

According to specialists in the field of education, school and classroom management aims at encouraging and establishing student self-control through a process of promoting positive student achievement and behavior. Thus academic achievement, teacher efficacy, and teacher and student behaviors are directly linked with the concept of school and classroom management.

Academic performance really means three things: The ability to study and remember facts, being able to study effectively and see how facts fit together and form larger patterns of knowledge and being able to think for yourself in relation to facts and thirdly being able to communicate your knowledge verbally or down on paper. Good academic performance is also linked having good organizational skills such as a
tidy place to work and good time management. And these are all things you need to consider.

Lujan, Jaime (2001), sited that teacher behavior does not affect student academic achievement directly. Achievement requires effort engagement on the part of the student as a necessary but not a sufficient condition for successful performance. Teacher warmth influences primarily effort engagement behaviors which in turn affect achievement. The present study investigate that the teacher behavior and Academic performance of 3rd year high school students

Methodology

Discussed in this chapter are the research design, respondents, research instruments, data gathering procedure and statistical treatment of data.

Research Design

The descriptive correlational method will be used in this study. This method determines the nature of prevailing conditions, personal, situational environment and factors and practices. Survey research is employed to measure the variables by asking people questions and then examining relationships between the variables. In correlation research, it involves collecting data in order to determine whether and what degree, a relationship exist between two or more variables (Ariola, 2007).

Therefore, this method is appropriate in this investigation the fact that it assesses the teacher behaviors and academic performance of the students in the selected Catholic Schools in Nakhonnayok, Thailand.

Sampling Design

The stratified random sampling procedure with proportional allocation is used to obtain a sampling frame. To select randomly the actual respondents of the study, the researcher will write the names of the students coming from 3 selected Catholic schools and roll them and place in a box. The desired number size in each will be drawn; thus, those numbered names appearing therein constitute the sample group for the study.

Hence, this sampling method is appropriate in this study.

Research Instrument

The researcher adopts the validated questionnaire on teacher behaviors developed by Gary Borich 1997. The teacher behaviors have 5 indicators namely: task orientation, lesson clarity, instructional variety, engagement in the learning process and students’ success rate. Each indicator has 5 items to rate with a total of 25 questions. Interpretation of responses on the teacher behavior is based on weighted mean. The mean is given the following descriptive equivalent and interpretation.

<table>
<thead>
<tr>
<th>Numerical Rating</th>
<th>Descriptive Equivalent</th>
<th>Descriptive Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Always</td>
<td>The teacher behavior is exceedingly met and experienced beyond the expected frequency.</td>
</tr>
<tr>
<td>4</td>
<td>Often</td>
<td>The teacher behavior is far</td>
</tr>
</tbody>
</table>
above the expected frequency.

3
Sometimes

The teacher behavior is just the expected frequency.

2
Seldom

The teacher behavior is far below the expected frequency.

1
Never

The teacher behavior is far below the expected frequency.

The General Percentage Average (GPA) of each respondent will be obtained from the Registrar Office. The percentage equivalent is scaled and given the following descriptive equivalent for its academic performance.

<table>
<thead>
<tr>
<th>Percentage Equivalent</th>
<th>Numerical Scale</th>
<th>Descriptive Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>91%-100%</td>
<td>4.2 - 5.0</td>
<td>Excellent</td>
</tr>
<tr>
<td>81%-90%</td>
<td>3.4 – 4.1</td>
<td>Very Good</td>
</tr>
<tr>
<td>71%-80%</td>
<td>2.6 – 3.3</td>
<td>Good</td>
</tr>
<tr>
<td>61%-70%</td>
<td>1.8 – 2.5</td>
<td>Fair</td>
</tr>
<tr>
<td>51%-60%</td>
<td>1.0 – 1.7</td>
<td>Poor</td>
</tr>
</tbody>
</table>

**Data Gathering Procedure**

The following steps will be observed in the gathering of data from the respondents:

- Seeking permission to conduct the study. The researcher will seek permission from the school directors of the selected Catholic schools in Nakhonnayok, Thailand. The conduct of this study will be on the 1st of April 2009.
- The researcher will distribute the questionnaire to the respondents of the selected Catholic schools.
- The researcher will retrieve the questionnaire after the respondents answer the questions. The researcher will collect the GPA of the respondents before the term will close.
- The data will be tabulated based on the demographic profile of the respondents in answer to the sub-problems.

**Statistical Treatment**

- **Average Weighted Mean.** This is used to determine the teacher behaviors. This statistical technique is used to answer specific sub-problem 1.
- **Mean.** This is used to determine the level of academic performance of the respondents. This is used to answer the specific sub-problems 2 and 3.
- **Pearson r.** This is employed to measure the degree of the relationship between teacher behaviors and the academic performance in answer to sub-problem 4.
- **Multiple Regression.** This is used to determine the degree of influence of each or a combination of teacher behavior factors on the academic performance of the respondents in answer to sub-problem 5.
Statistical Significance
In the statistical test, the significance of the difference is set at the .05 Alpha levels.

Summary of Findings, Conclusions and Recommendations
Presented in this chapter are summary, conclusions and recommendations based on the findings of the study.

Summary of Findings
The findings of the study are presented as follow:

The mean value of teacher behavior was 4.012 or often which was obtained from the task orientation mean of 4.0 or often, 4.0 or often from lesson clarity, 4.0 or often for instructional variety, 4.0 or often for engagement in the learning process, 4.06 or often for the classroom management. The overall mean for teacher behaviors is 4.012 or often.

When analysis was done by gender, the computed t-value for task orientation is -.388 or accepted with .698 p-value, the t-value for lesson clarity is 1.193 or accepted with .234 p-value, the t-value for instructional variety is .457 or accepted with .648 p-value, the t-value of engagement in the learning process is 2.69 or not significant with .008 p-value, the t-value of classroom management is .80 or accepted with .420 p-value, and the overall computed t-values for teacher behaviors when analyzed by the gender is 1.12 or accepted with .262 p-values.

When analysis was done by parent marital status, the computed f ratio for task orientation is 1.926 or accepted with .127 p-value, the f-ratio of lesson clarity is .506 or accepted with .679 p-value, the f-ratio for instructional variety is .125 or accepted with .945 p-value, the f-ratio for engagement in the learning process is 2.521 or accepted with .059 p-value, the f-ratio for classroom management is 1.848 or accepted with .140 p-value and the overall computed f-ratios for teacher behaviors when analyzed by the parent marital status is 1.442 or accepted with .232 p-values.

The computed mean for the significance differences of students academic performance when analyzed by gender was .301 which obtain from English t-value is 2.847 or not significant with .005 p-value, 1.991 or not significant for Math with .048 p-value, 3.066 or not significant for Science with .002 p-value, 3.036 or not significant for History with .003 p-value and the overall t-value for significance differences of students academic performance when analyzed by gender is 2.847 or not significant with .005 p-values.

The analysis was done for students academic performance when analyze by parent marital status. The computed f ratio for English was .077 or not significant with .972 p-value, the f-ratio for Math is .336 or not significant with .799 p-value, the computed f-ratio for Science is .123 or not significant with .946 p-value, the computed f ratio for History is .279 or not significant with .841 p-value, the overall f-ratio for students academic performance when analyzed by family background is .086 or not significant with .968 p-values.

Conclusions
Based on the foregoing findings, the following conclusions are drawn:
The teacher behaviors of the respondents are often. The gender and parent marital status are not significant for the teacher behaviors. The gender and the parental are not
significant for the students’ academic performance. The correlation between Teacher behaviors and Academic performance of the students is negligible.

Recommendation

Based on the foregoing findings, the following conclusions, the following recommendation were offered:

The level of teacher behaviors using all the indicators such as task orientation, lesson clarity, instructional variety, engagement in the learning process and classroom management it will help the teachers developed the knowledge of the students with less effort.

The school administrators should meet his/her teachers to developed and enhances the personality of the teachers and using the teacher behaviors it helps the teacher more effective.

The correlation between Teacher behaviors and students academic performance of third year in selected Catholic Schools in Nakhonnayok is accepted. The future research could used this as their references.

References

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http://www.talentedteachers.org/tap.taf?page=element1
http://www.tqsource.org/topics/effectiveClassroomManagement.pdf
Factors Influencing Students’ Participation in the Classroom of Selected Catholic Schools in Nakhornnayok, Thailand

Rosie B. Arcillas (fragrantrose77@yahoo.com)
St. Theresa International College, Nakhornnayok, Thailand

ABSTRACT

The purpose of this descriptive study was to investigate the factors influencing students’ participation in the classroom in selected catholic schools in Nakhornnayok, Thailand. The respondents of this study were the first to third year high schools from three selected catholic schools in Nakhornnayok, Thailand. These are Christasongkroh School, Malasawa Phittaya School, and Joseph Uphatam Nunglee School. The data were gathered, tabulated and interpreted by using the statistical treatment of data. The weighted mean, t-test, and the analysis of variance (ANOVA).

The overall mean value for factors influencing students’ participation in the classroom was high which was obtained from the indicators: teacher factor, student factor, classroom factor, subject factor, and instructional material factor.

Based on the foregoing findings, the following conclusions were drawn:

The teacher factor, student factor, classroom factor, subject factor, and instructional material factor have high influence to the students’ participation in class activities.

Age, gender, grade level, and family background are not factors of students’ participation in class activities. The respondents have the same level of participation in class activities.

Based on the foregoing findings, the following recommendations were offered:

The school administrators should strengthen their faculty development program to enhance teachers’ teaching skills and classroom management skills for these are the factors that influence students’ participation in class activities. Teachers should continue their professional growth to enhance their teaching crafts to hone the student’s innate potential necessary in the 21st century. The researchers could replicate this study using the indicators not covered by this study.

Introduction

Background of the Study

Students’ participation in class is one of the aspects of classroom interaction. It is a process in which opportunities are created for student’s to practice in class in order to produce output learning. Teaching materials, classroom atmosphere, and teaching style are grouped into the learning situation level as far as the present situation in English teaching in Thailand is concerned. Teaching materials serve as an important source of language input and to provide the content for teachers and learners to talk about for the interaction between teaching and learning to occur. These are the important factors classroom specific situations that might have an effect on classroom participation. On the other hand, having a harmonious and pleasant classroom climate will greatly involve learners in the learning process (Ellis, 1994).
Learners’ participation in class is one of the aspects of classroom interaction (Ellis, 1994). It is a process in which opportunities are created for learners to practice L2 and to produce output. When the second language is learned as a foreign language in the classroom, it is one of the few ways to determine how well they learn and one of the rare chances to communicate. However, not all students are active to involve, as is normally found. In the classroom, pupils are necessary for the progress of instruction, participation is not confined only to physical presence but their mental presence. Students need encouragement, a stable classroom/school environment, and a chance to succeed. In our modern world of fast-moving images and strong media influence, a student’s ability is often taken for granted. Since we are inundated with information, it is easy to assume students are being educated when they are out of the classroom. In most cases, however, this is not the case. Student’s need a stable classroom environment where in the students can learn what they need to know. Students deserve the chance to succeed by manipulating some situations that can possibly give each student the satisfaction of being successful.

Statement of the Problem

Students do not participate in class activities and are often considered to be passive and are generally penalized when participation is graded. When students missed or don’t understand information in class, it is often due to not paying adequate attention. All students know what it’s like to listen to a lecture they aren’t particularly interested in; it can also be hard to focus when instruction is poor, when there are distractions, or when more pressing matters are weighing on the student’s mind. Some students also have chronic attention problems regardless of the content. Unfortunately, attention difficulties can lead to lowered grades, teacher frustration, and low self-esteem. The more engaged a student is in what is going on in the classroom, the more focused he will be. Students can increase their level of involvement by raising their hands to answer questions, volunteering to take part in demonstrations, making relevant comments, and asking questions.

Attention difficulties in class are a common problem that, without solid strategies, can be harm to a student’s success. Taking the initiative to implement some simple ideas can help any student improve their ability to pay attention. This study aims to determine the significant difference in the factors influencing students’ participation in the classroom. To determine the solutions to this problem, the following research questions are formulated:

Research Questions

This study aimed to determine the significant difference of factors influencing students’ participation in the classroom, specifically sought to answer the following research questions:

1. What is the level of the influencing factors of students’ participation in classroom activities in terms of the following?
   1.1 Teacher factor
   1.2 Student factor
   1.3 Classroom factor
   1.4 Subject factor
   1.5 Instructional material factor
2. Is there significant difference in the level of factors influencing students’ participation in the classroom when analyzed by?
   2.1 Age
   2.2 Gender
   2.3 Family background

**Hypothesis**

Ho: There is no significant difference in the factors influencing students’ participation in the classroom when analyzed by:
   1. Age
   2. Gender
   3. Family background

**Theoretical/Conceptual Framework**

This study is anchored on the theory of Shalaway (1998) that students are encouraged to participate in classroom activities when the environment is supportive to student learning. He identifies factors influencing students’ participation in the classroom which comprise of the following: teacher, student, classroom, subject, and instructional materials factors.

Effective learning environment gears towards high level of student achievement. If a teacher is ineffective, students under that teacher’s instruction will achieve inadequate progress academically. Teacher’s effectiveness is the most important in the students learning progress.

An effective teacher is one who has honed his skills in the art of teaching. He demonstrates proficiency in the use of the language, adopts varied teaching strategies, recognizes change, applies innovations, revises techniques for optimum results, and allows himself to be guided by acknowledge principles and theories in education.

![Diagram](image.png)

**Figure 1.** Showing the Conceptual Framework of the Study
Significant of the Study
The findings of this study could be of significance to the following:

School Administrators. The output of this study helps to design faculty development program to reload teachers with current trends in teaching.

Teachers. The teachers can benefit the result of this study for actively planning and managing classroom activities.

Parents. The output of this study will give information to parents about the level of participation of their children in classroom activities for follow up at home.

Researcher. The result of this study will give information to future researcher to conceptualize, follow up study related to students’ participation in class activities covering the indicator not involved in this study.

Research Design
The descriptive research method was used in this study. Descriptive survey method is used to analyze, interpret, and report the present status of the subject matter or problem (Ariola, 2006). This method was used to enable the researcher to gather relevance data through the use of survey questionnaire.

Therefore, this method is appropriate to the fact that it assesses the factor influencing students’ participation in the classroom in the selected Catholic Schools in Nakhornnayok, Thailand.

Respondents of the Study
The purposive sampling design was used in this study to obtain relevant data. To determine the number of respondents, the researcher used Slovin’s equation. The respondents of the study were the selected first year to third year high school students in the selected Catholic schools namely: Christasongkroh School, Malasawan Phittaya School, and in Joseph Uphatam Nunglee School, Nakhornnayok, Thailand. There were 200 identified respondents. The distribution of the respondents is shown in Table 1.

Table 1
Distribution of the Respondents

<table>
<thead>
<tr>
<th>Name of Schools</th>
<th>Number of respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christasongkroh School, Nakhornnayok, Thailand</td>
<td>43</td>
<td>21</td>
</tr>
<tr>
<td>Malasawan Phittaya School, Nakhornnayok, Thailand</td>
<td>127</td>
<td>64</td>
</tr>
<tr>
<td>Joseph Uphatam Nunglee School, Nakhornnayok, Thailand</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100</td>
</tr>
</tbody>
</table>
Statistical Treatment

The data gathered through the questionnaires were tallied using the following statistical tools:

*Weighted Mean*. This was used to determine the factors influencing students’ participation in the classroom in answer to research question number two.

*T-test*. This was to determine the significant difference of factors influencing participation in the classroom when grouped by gender.

*Analysis of Variance (ANOVA)*. This was used to determine the significant difference of factors influencing student participation in classroom when grouped by grade level.

Summary of Factors Influencing on Students’ Participation

The overall mean scores for factors influencing on students’ participation are 3.89 or high for teacher factor; 4.1275 or high for student factor; 3.90 or high for classroom factor; 3.86 or high for subject factor; and 4.11 or high for instructional material factor.

Data reveals that factors influencing students’ participation in class activities are teacher factor, student factor, classroom factor and instructional material factor. This implies that all the identified factors influencing students’ participation in class activities promote student learning and self-confidence.

Summary of Factors Influencing on Students’ Participation in Class Activities

<table>
<thead>
<tr>
<th>Indicators for Factors Influencing on Student’s Participation in Class Activities</th>
<th>Mean</th>
<th>Descriptive Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Factor</td>
<td>3.89</td>
<td>High</td>
</tr>
<tr>
<td>Student Factor</td>
<td>4.12</td>
<td>High</td>
</tr>
<tr>
<td>Classroom Factor</td>
<td>3.90</td>
<td>High</td>
</tr>
<tr>
<td>Subject Factor</td>
<td>3.86</td>
<td>High</td>
</tr>
<tr>
<td>Instructional Material Factor</td>
<td>4.11</td>
<td>High</td>
</tr>
<tr>
<td>Overall Mean</td>
<td>3.97</td>
<td>High</td>
</tr>
</tbody>
</table>

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Presented in this chapter are the summary, conclusions and recommendations based on the findings of the study.

Summary of Findings
The findings of this study are presented as follows:

The overall mean for factors influencing students’ participation in class activities was 3.97 or high which was obtained from the five indicators:

1. Teacher factor with a mean of 3.89 or high; for student factor is 4.1275 or high; classroom factor is 3.90 or high; for subject factor is 3.86 or high; and for instructional material factor is 4.11 or high.

2. When analysis was done by age grouped, the computed t-value for teacher factor was .409 or not significant with a p-value of .683; the computed t-value for student factor was .085 or not significant with a p-value of .932; the t-value for classroom factor was -.332 or not significant with a p-value of .740; the t-value for subject factor was -.272 or not significant with a p-value of .786; the t-value of instructional material factor was .277 or not significant with a p-value of .782. The overall computed t-value for factor influencing students’ participation in class activities was .056 or not significant with a p-value of .956.

3. When analysis was done by gender, the computed t-value for teacher factor was .928 or not significant with a p-value of .354; the t-value for student factor was 1.183 or not significant with a p-value of .238; for classroom factor the t-value was .107 or not significant with a p-value of .915; for subject factor the t-value was -.017 or not significant with a p-value of .987; for instructional material factor the t-value was .566 or not significant with a p-value of .572. The overall computed t-value was .669 or not significant with a p-value of .505.

4. When analyzed by grade level, the computed F-ratio for teacher factor was .868 or not significant with a p-value of .421; for student factor the computed F-ratio was .890 or not significant with a p-value of .412; for classroom factor the F-ratio was 1.164 or not significant with a p-value of .314; for the subject factor the F-ratio was .146 or not significant with a p-value of .864; and for the instructional material factor the F-ratio was .839 or not significant with a p-value of .434. The overall computed F-ratio was .431 or not significant with a p-value of .651.

5. When analyzed by family status, the computed F-ratio for teacher factor was 1.148 or not significant with a p-value of .331; for student factor the F-ratio was 1.014 or not significant with a p-value of .388; for classroom factor the F-ratio was .426 or not significant with a p-value of .735; for subject factor the F-ratio was .212 or not significant with a p-value of .888; and for the instructional material factor the F-ratio was .558 or not significant with a p-value of .643. The overall computed F-ratio was .583 or not significant with a p-value of .627.

Conclusions

Based on the foregoing findings of this descriptive study, the following conclusions are drawn:
The teacher factor, student factor, classroom factor, subject factor, and instructional material factor have high influence to the students’ participation in class activities. Age, gender, grade level, and family background are not factors of students’ participation in class activities. The respondents have the same level of participation in class activities.
Recommendations

Based on the foregoing findings and conclusions, the following recommendations were offered: The school administrators should strengthen their faculty development program to enhance teachers’ teaching skills and classroom management skills for these are the factors that influence students’ participation in class activities.

Teachers should continue their professional growth to enhance their teaching crafts to hone the student’s innate potential necessary in the 21st century. The researchers could replicate this study using the indicators not covered by this study.
Inquiry-based experiments to improve students’ conceptual understanding of organic extraction and purification

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ABSTRACT

The inclusion of inquiry-based learning approach in chemistry laboratory has been highly advocated in the last three decades to improve students’ chemistry conceptual content knowledge and also process of inquiry learning. As a result, two 3-hour inquiry-based experiments concerning acid-base extraction and recrystallization were implemented as a part of the organic chemistry Laboratory I course. Sixty-four chemistry students enrolled in the course were asked to separate the mixture of benzoic acid, p-nitroaniline and naphthalene by acid-base extraction and to purify each of the extracted compounds by recrystallization in an appropriate condition. The concept of basic liquid-liquid extraction was provided through the interactive caffeine extraction simulated experiment. The data collected in this study consisted of conceptual understanding and experiment diagram as well as mental model drawings of acid-base extraction.

The paired-sample T-test analysis indicated that the students obtained post-experiment score for each of the conceptual test, the experiment diagram, and the mental models of acid-based extraction process statistically higher than the pre-experiment score at $p<0.001$. Although most students had planned their experiments carefully and perfectly, many students revealed alternative conceptions through their pre-mental models and pre-diagrams of acid-based extraction. However, most of them could correct their alternative conception after experiencing the inquiry-based experiment.

Keywords: inquiry-based experiment, alternative conception, mental models, organic extraction

Introduction

Traditional cookbook experiments are often effective in developing student’s observational skills and illustrating a key connection between theory and practice in chemistry. However, cookbook experiments are sometimes failed in developing the scientific process called science inquiry or scientific investigation (Green, Elliott & Cummins, 2004). On the other hand, inquiry-based experiments emphasize the explicit use of the whole process of science inquiry. In this approach, students have to define the investigated problem, generate hypotheses, devise a plan and conduct the investigation, and making explanations from experimental evidence (Hand & Keys, 1999). Therefore,
inquiry-based experiments provide an opportunity to not only imitate the experiment, but also to practice how scientists really do science, and to deeply understand key concepts in chemistry (Green, Elliott & Cummins, 2004).

Inquiry-based laboratory in terms of skills and abilities by National Science Education Standards refers to laboratory that provide students with opportunity for asking scientifically oriented questions, forming hypotheses, designing and conducting scientific investigations, making scientific explanations from experimental evidence, and communicating and defending scientific arguments (National Research Council, 2000). This student-centered laboratory is central to science and can promote students’ meaningful learning, conceptual understanding, inquiry skills, and understanding the nature of science when properly developed and implemented (Kipnis & Hofstein, 2007).

The inquiry-based experiments have been proven to be effective approach in learning chemistry laboratory and highly advocated in the last 2-3 decades (Sanger, 2008). The inquiry-based experiments have advantages over traditional experiments since students are challenged to practice using learning resources and working in group to enhance their analytical and critical thinking skills. In addition, they have an opportunity to practice chemistry research and to do science (Black, 1996).

Inquiry-based approach in learning both chemistry lecture and laboratory class has been highly advocated by many institutions in Thailand. Lab manual and instructor in this learning approach are no longer the main source of knowledge but are the facilitator to motivate and challenge their students to be able to complete the experiment through science inquiry process which is important and essential for doing their further science research (Deters, 2005; Hampp, 2008).

It is advisable that implementation of inquiry-based laboratory with inexperience students should begin with familiar techniques such as liquid-liquid extraction, but make it more complicated and challenging (Montes, Lai & Sanabria, 2003). In this study, liquid-liquid extraction was considered because it is a common and relevant technique for chemistry students and they already performed the basic extraction of a single compound from a given solution. In a new task, students were asked to separate a mixture of acid, basic and neutral organic compound from a given solution. This is intellectual challenge since there is no procedure and equipment list given, while they have to integrate what they have learned with information from literature search of how to separate each
compound from the mixture. This learning process can support students’ development of both understanding and inquiry process skills.

Research Methodology

Goals and Objectives

The main goal of this study was to develop and implement inquiry-based separation and purification experiment to promote students’ scientific process skills. This study was intended not to compare the inquiry-based laboratory over the traditional one, but to investigate how the inquiry laboratory works with students who had limited experience with inquiry approach laboratories. More specifically, the objective of this study was to investigate student conceptual understanding and mental models (presentations of the mind constructed by incorporating relevant conceptual understanding into existing knowledge to explain how a specific process functions or works (Supasorn, Suits, Jones & Vibuljan, 2008; Bodner, 2007) of separation and purification of a mixture of acid, base and neutral organic compounds before and after experiencing with the inquiry-based separation and purification experiments.

Implementation

The participants were 64 second-year chemistry students enrolled in Organic Chemistry Laboratory I during 1/2009 semester at Ubon Ratchathani University. Since this study was a pre-experimental design, all participants were treated similarly. The inquiry-based acid-base extraction and purification experiment were implemented as 2 lab periods (6 hours). They were asked to participate in the following process:

1) A week prior to the laboratory, the participants were noticed that no lab direction is given for the next 2 experiments. The task is to individually design their own experiments to separate and purify a mixture of benzoic acid, p-nitroaniline, and naphthalene. They have to hand in their lab planner three days prior to the lab hour for suggestion from lab instructors. The basic organic extraction concepts and simulated experiments are available online through the Interactive Caffeine Extraction Simulated Experiment, ICESE, http://www.chem.sci.ubu.ac.th/e-learning/extraction_en/. 
2) Before conducting the experiment, they spent 15 minutes to complete a set of pretest including conceptual test and diagram of experiment process. Example of higher-order cognitive skill questions is illustrated in Figure 1. They were asked to draw their understanding (called mental models) of organic acid-base separation, modified from Supasorn, et.al. (2008), as shown below.

"Please draw series of pictures to represent your understanding about what happens in a submicroscopic level when you are extracting a mixture of benzoic acid (\(\triangle\)), p-nitroaniline (\(\Box\)), and naphthalene (\(\bigcirc\)) dissolved in dichloromethane by HCl followed by NaOH solutions. Changing in molecules can be indicated by color or solid icon."

They then took about 150 minutes to separate the mixture of the three compounds regarding their designed experiment. Crude crystals of the three compounds should be obtained in this step.

3) Students took 150 minutes to purify their crude crystals by recrystallization in the appropriate solvent. Then determine the melting point of the fine crystal of the 3 compounds compared to the crude crystals.

4) During the last 30 minutes of the three-hour lab period, they completed the set of post-test (same difficulty and parallel to a set of pretest). They were encouraged to review and correct their mental models.

1) Suppose you have 1 g of a mixture of acid A (\(\triangle\)) and base B (\(\Box\)) dissolved in 20 mL of CH\(_2\)Cl\(_2\). You extracted the solution with 20 mL of 0.2 M HCl solution. Which picture best describes the result for this extraction? Notice that solid icon indicates change in molecules.

1. ii) iii) iv)
2) Identify the structure of substance A, B, C & D by selecting from choice i-iv.

![Chemical structures](image)

Figure 1. Example of HOCS questions in the conceptual test of experiment

Data Analysis

The collected data during this study including pre- and posttest test scores, pre- and post-experiment diagram, and pre- and post-mental models (coding and then scoring) of organic acid-based separation and purification were analyzed. Since this study was a pre-experimental design (one group pretest-posttest), paired-sample T-test analysis was performed to identify mean differences between pre- and post-scores.

Results and Discussion

The study results showed that the averaged post-conceptual test scores ($\bar{x}=6.47$, $SD=1.47$) of separation and purification of the mixture of acid, base and neutral organic compounds was statistically higher than each of the averaged pre-conceptual test score ($\bar{x}=5.03$, $SD=1.65$) at $p$-value <0.001 (see Table 1). The post-experimental diagram score ($\bar{x}=4.29$, $SD=1.60$) was statistically higher than each of the averaged pre-experimental diagram score ($\bar{x}=2.59$, $SD=1.61$) at $p$-value <0.001.

Table 1. Pre- and post-scores on conceptual test (CT), experimental diagram (ED), and submicroscopic mental models (MM)

<table>
<thead>
<tr>
<th>Test</th>
<th>Pretest mean</th>
<th>Pretest SD</th>
<th>Posttest mean</th>
<th>Posttest SD</th>
<th>T</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT</td>
<td>5.03</td>
<td>1.65</td>
<td>6.47</td>
<td>1.47</td>
<td>5.21</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>ED</td>
<td>2.59</td>
<td>1.61</td>
<td>4.29</td>
<td>1.60</td>
<td>5.99</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>MM</td>
<td>4.86</td>
<td>1.50</td>
<td>6.80</td>
<td>1.62</td>
<td>7.03</td>
<td>&lt; 0.001</td>
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Note: Full score for each of CT, ED & MM was 10, 6 & 10 respectively (n=64).
There were a few questions that students often answered them wrong. One of them was to calculate a partition coefficient of a given extraction system. This may be due to the fact that the partition coefficient was not covered in a lecture part. The other question was to select the appropriate solvent for the extraction when provided solubility of a substance in each solvent and miscibility of a solvent in a mixture solution being extracted. This may occur because they just selected the 2nd solvent from solubility property and omitted the miscibility of the 2nd solvent in the 1st solvent (if the two solvents are miscible, the extraction system will not separate into two layers).

Since the guided inquiry experiments engaged and challenged students in all steps of the experimental process (searching literature, planning and conducting their own experiment, and analyzing and discussing experimental data), their conceptual understanding and mental models of the experiment concepts were enhanced (Green, Elliott & Cummins, 2004).

<table>
<thead>
<tr>
<th>Extracted with HCl</th>
<th>Extracted with NaOH</th>
<th>Extracted with HCl</th>
<th>Extracted with NaOH</th>
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<td><img src="image1" alt="Diagram" /></td>
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<td><img src="image3" alt="Diagram" /></td>
<td><img src="image4" alt="Diagram" /></td>
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a) Student A (alternative conception)

b) Student B (alternative conception)
d) Student D (acceptable conception)
e) Student E (correct conception)
In the same fashion, the averaged post-mental models score ($\bar{X}=6.80$, $SD=1.62$) was also significantly higher than the pre-mental models score ($\bar{X}=4.86$, $SD=1.50$) at $p$-value $<0.001$. Many students showed the most likely correct conceptual understanding in their pre-model. This may be due to the fact that they have interacted with the ICESE which was carefully designed based on a constructivist learning environments to support student development of conceptual understanding and mental models (Supasorn, et.al., 2008). However, some students expressed some alternative conceptions at submicroscopic level (Figure 2).

Major alternative conceptions are categorized below;

- $p$-nitroaniline still left in the organic layer after extracted with HCl solution (Figure 2a),
- $p$-nitroaniline and/or benzoic acid molecules were transferred to the aqueous layer without any change in molecule (Figure 2b),
- naphthalene molecule were changed and left in the organic layer (Figure 2c),
- $p$-nitroaniline and benzoic acid were mixed in the aqueous layer after extracted with HCl and NaOH solutions, and about 70% of students showed that 100% of molecules were transferred to the other layer (acceptable conception, Figure 2d), while 30% realized that not 100% of molecules were transferred (corrected conception, Figure 2e).

After performing the hands-on experiment, most of them corrected their alternative conception and obtained the more correct mental models (Supasorn, et.al., 2008). Many students realized that there should be a few molecules left in the old layer after extraction,
not 100% transferred (Figure 2e). Most of them recognized that \( p \)-nitroaniline and benzoic acid transferred from organic layer to aqueous layer because they were changed from organic acid and base compounds (soluble in organic solvent) into salts (soluble in water). They also noted that no change in naphthalene molecule after extracted with HCl and NaOH solutions, so they were still dissolved in the organic layer. However, some of them tended to accommodate their alternative conceptions. In this case, lab instructor had to discuss further to help them obtain the acceptable conceptions.

The instructor observation during lab period accompanied with analyzing lab plan and report implied that science inquiry, scientific investigation and thinking of the students were continually improved. Moreover, they were confident of planning and conducting the experiment as they were less rely on the lab manual during performing the experiment. Although the students obtained the scores on the conceptual test and mental models of organic acid-base separation and purification, they planned and conducted the experiment successfully with few facilitating from the lab instructor. The two major problems encountered in the experiment were;

- they sometimes confused which layer will be re-extracted because they were familiar with extracting substance from aqueous to organic layer, and
- they evaporated solvent from naphthalene solution by heating it on a hot plate so some naphthalene were sublimated.

**Conclusions**

The results of this study verified that inquiry-based learning approach is effective in chemistry laboratory. This laboratory style can effectively improve student conceptual understanding as well as science inquiry skills including designing and conducting scientific investigations, making scientific explanations from experimental evidence, and communicating and answering corresponding scientific questions (National Research Council, 2000). This supported that lab manual and instructor are no longer the main source of knowledge about experiments (Deters, 2005; Hampp, 2008). Moreover, student mental models of what is happening at a submicroscopic level during each step of the experiment can be enhanced. This can help students to really understand key concepts in chemistry especially at a submicroscopic world (Bodner, 2007).
This study may have implication to chemistry lab instructors to consider implementing inquiry-based experiments in their chemistry laboratory. It will be a great help to enhance student scientific investigation skills if they have a chance to practice 2-3 inquiry experiments per a semester.

In the future, effects of inquiry-based experiments on student progression of science inquiry and other scientific process skills will be studied throughout the organic chemistry I and II courses.

Acknowledgement

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References


Managing teacher balkanization in times of implementing change

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ABSTRACT

This article presents a qualitative case study aiming at exploring how teachers responded to imposed educational change of parental involvement in school. By capturing the thoughts and perceptions of twenty-four teachers and two principals in two case study schools, together with conducting participant observations, it is found that there were implicit and explicit ideological demarcations among teachers. Three balkanized factions of teachers were wrestling at school. For those who welcomed the innovation of parental involvement, they took initiatives to communicate and work with parents. The second faction of teachers who disbelieved such innovation was found diffident and conservative, and demonstrated resistance to change. The third type of teachers was of majority who might or might not take part in implementing change. However, once incentives were imposed from the management, they would probably be assimilated towards welcoming parental involvement. On the contrary, this faction of teachers might also be affected by the second faction of conservative teachers possessing the value of isolated orientation at the same time. Balkanization easily causes conflicts among teachers and exerts negative impacts on school cultures. In such a wrestling state, school leaders should be alert and provide teachers with sufficient opportunities for professional development so that they are equipped with necessary skills and knowledge that help facilitate educational change.

Keywords: school culture, education reform, parental involvement, educational change

Introduction

Globalization has exerted impacts on educational change for future developments (Carnoy and Rhoten, 2002). For the last two decades, the education sector has been changed quickly in Hong Kong. After 1990, the emphasis of education restructuring has been placed mainly on the assurance of education quality, to which the Hong Kong government has allocated a great deal of funds to improve the education environment. Cheng (2007) conceptualizes the period of 1990s emphasizing interface effectiveness of educational institutions as the second wave of education reforms in response to the concerns about educational accountability to the stakeholders. Thus, empowering parents to play a role in the self-managing school is one of the important innovations recently in helping achieve school effectiveness (Caldwell, 2004; Beare, Caldwell and Millikan, 1989). However, educational change entails many challenges (Duke, 2004). In Hong Kong, with the implementation of school-based management that portion of power of governance is decentralized to parents, principals and teachers are facing new challenges as a result of their changing roles and responsibilities.
The policy of involving parents in school management was realized in Hong Kong in 2009. The Advisory Committee on School-based Management (2000) has consulted the public for the number of parent representatives to be included in the School Board. Parental involvement is then introduced to school as an educational innovation. Eventually, the Ordinance of the School Based Management was made in 2004 to allow one parent representative to be the official member of the Incorporated Management Committee in each public school (Pang, 2005). Marked evidences from a lot of research in the West demonstrate that partnership between teachers and parents can help enhance positive development of children’s self-concepts and can make contribution to the long term development of school effectiveness (Bastiani, 1993; Epstein, 1996; Hornby, 1995; Munn, 1993). Encouraged by the positive evidence of getting parents involved, the Hong Kong government has initiated measures to gradually involve parents at different levels of school education since 1994 through the reform movement of implementation of school-based management (Ng, 2007a).

According to Pang (2005), parents are currently participating actively at different levels of school education with reference to Epstein’s (2001) model of parent-school partnerships. Ng (2007b) argues that parents are now partners of the school who are involved in children education from communication with teachers to being elected to manage the school. However, many teaching professionals have had a lot of doubts such as whether it is ripe time to get parents involved in the school, whether teachers and parents can get along well with each other and whether parental involvement will facilitate or impede school operation. Implementing educational change of parental involvement signifies that ‘power given to a subordinate group is consequently lost by the former power-holder’ (Vincent, 1996, p.7). The purposes of this article are (1) to report an exploratory case study designed to illuminate how school cultures are impacted by the innovation of increased parental involvement, and (2) to find out the dynamic relations between teachers’ value demarcations and educational change grounded in the empirical data.

Literature review

Most researchers (e.g. Fullan, 2001; Duke, 2004) have conceptualized broad phases of the change process, namely: initiation, implementation, continuation and outcome. It is worth noting that the attitude of teaching professionals and the cultures in schools are of paramount importance during the process of implementing educational change.

Impact of educational change on school cultures

Hall and Hord (2001) argue that proposed change may not be realized overnight. The studies of many scholars (e.g. Davies, 2005; Fullan, 2003; Hallinger, 1996; Hargreaves 2007; Leithwood and Jantzi, 2005) have found that perspectives of leadership, teachers’ commitment and school culture are the key factors affecting a change or a reform. Fullan and Hargreaves (1996) and Sikes (1992) define school cultures as the guiding beliefs and expectations evident in the way a school operates and the product of beliefs, values and characteristics of teaching professionals and students. To implement and continue educational change in a school, Vincent (1996) has highlighted that the teacher is envisaged as the key element in creating school ethos or cultures conducive to change.
On the other hand, change imposed from outside will lead to internal change eventually. This means that the guiding beliefs will change, as the expectations from outside are already different. In other words, imposed change implicates existing school cultures (Conley and Cooper, 1991). It challenges its old meaning and it renders the possibility of using a new definition of what is and what ought to be in the school context (Rossman, Corbett and Firestone 1988). Principal components of the culture are the knowledge of teachers influencing the manner in which they define their roles, as well as the myths of this culture which might persuade teachers to adhere to the more traditional approach whereby knowledge is transferred to students in teacher-controlled activities. Change will smoothly be received if its content is congruent with that of the existing school culture. Innovations may probably be accepted if they are consistent with patterns of values and beliefs of the majority of the teachers in the school and may also be abandoned if they are incompatible. Therefore, it concludes that teachers’ receptivity to innovations rests basically on the relationship between teachers’ beliefs and the content of change (Sarason, 1982). The relationship between school cultures and change is more complex than what it suggests. Different teacher groups within an educational institution will experience the change in different ways and perceive it in different perspectives. Fullan and Hargreaves (1996) and Sikes (1992) define school cultures as the guiding beliefs and expectations evident in the way a school operates and the product of beliefs, values and characteristics of teaching professionals and students. Whitaker (1993, p. 102) highlights that a key factor in successfully leading change is “the capacity to give deliberate attention to the building and development of an organizational culture conducive to collaboration, participation and change”. The extent of impacts of change on school cultures depends on the responsiveness of the stakeholders to change including teachers and principals. That is whether they can work harmoniously in compliance with the imposed change (Fullan, 2001). Ambivalence can be removed if there is a consensus on change among colleagues in the working place. As stressed by Marris (1975), any innovation cannot be assimilated until its vision and meanings are shared and unless its values and assumptions are accepted. It depends very much on the quality of teachers which is the predictor of whether an innovation is successfully implemented in the school.

**Frontline teachers as change agents**

The school is the centre of change and both principals and teachers play important roles in the change process (Goodlad, 1994). Inviting parents to be school partners in Hong Kong has involved the effort of both teachers and principals in school in which a culture of collegial consensus could help facilitate educational change. Fullan (1993) has argued that teacher professionals are the best agents to facilitate change. He has identified four types of core capacities of change agents. They are “vision building”, “inquiry”, “mastery” and “collaboration”. He perceives them as supporting forces “required as a generative foundation for building greater change capacity” (p.12). In other words, to carry out a planned change, it is of paramount importance to see how many teaching professionals are equipped with these change qualities that facilitate them to be receptive rather than resistant to change and how flexible they can exercise it. Hargreaves (1997, p.3) highlights that it is important to make schools into the types of venues that encourage and support teachers to make changes themselves as a new approach to educational change. He adds that “the central task in creating culture of educational change is how to develop more collaborative working relationships between principals and teachers, and among teachers themselves” because teachers’ professional communities can easily
become incestuous and protectionist ones. Moreover, Hargreaves and Fullan (1998) argue that both teachers and principals could combat what they experience as negative trends by bonding together in collaborative work cultures. Cultures of collaboration strengthen teachers’ sense of common purpose and enable them to interact assertively with external pressure for change.

In school, “collaboration” is best expressed by the term, “collegiality”. Lieberman and Miller (1984) argue that collegiality can encourage teachers to the extent that they can learn from each other, sharing and developing their expertise. It enhances teacher development beyond personal and idiosyncratic reflection, and beyond dependence on outside experts. Research evidence argues that teachers’ competence and confidence resulting from collegial support and collaboration leads to better readiness to experiment and take risks and eventually facilitates a commitment to continuous teacher improvement (e.g. Bird and Little, 1986; Rosenholtz, 1989). Hargreaves (2000) and Huberman and Miles (1984) envisage that collegiality can promote professional growth and generate internally school improvement; therefore, it can also be viewed as a means of ensuring effective implementation of the externally imposed change.

**Teachers’ resistance to educational change**

The educational change of parental involvement in school signifies that teachers and other educational professionals give some of their power to parents (Gore, 1993). Plan’s (1987) study showed that many teachers resisted to educational change due to fear of the unknown, threats to status and power, reluctance to experiment, custom bound, etc. Going to an extreme, they withdraw from any activities about the innovation (Fullan, 1999). Fullan and Hargreaves (1996) found that teachers keeping themselves away from the imposed innovation often sustain ‘educational conservatism’ (p.39). Ball (1987), Blašč (2005) and Ng (2006; 2007a) have found that educational reforms always bring along with micro-politics in school. Ball (1987) specifies that tensions and conflicts are hidden in the daily operation of a school in times of change. Fink and Stoll (2005) argue that some schools behave remarkably untouched in spite of the convergence of powerful forces for change because the quest for stability has become an excuse for immobility. Resistance seems a natural and predictable response. Fullan (2001) explains that an implementation dip always occurs during reforms. It informs that new skills and new understanding of the change is required. The implementation dip reflects the feeling of uneasiness with the new programmes or practices that will stall reform. Fullan (1999) also reminds us of challenges that will arise at different levels will in school. If the change tries to alter the surface levels, it may be more acceptable than it seeks to alter more deeply rooted beliefs of the teacher. Besides, we have to consider critically the existence of subcultures of teachers in a school. Sikes (1992) reiterates that it is impossible to assume all teachers working in a similar culture for innovations. There are different factions with different subcultures in a school. In the beginning of implementing educational change, teachers are usually inclining to balkanization which is made up of different cliques, generating various subcultures going their separate ways in a school (Ball, 1987; Fullan and Hargreaves, 1996; Sikes, 1992; Whitaker, 1993). Unless the groups demonstrating subcultures form a significant mass supporting the change in the school, it is likely to be abandoned. As a change imposed from outside can threaten and undermine the values, beliefs and norms of teachers, they may lose their sense of meanings and directions, and their confidence of what to do. Eventually, they may confront with confusion and fall into a state of alienation (Ng, 2004).
The literature review highlighted above demonstrates that teachers and principals are the key change agents in times of education reforms but there may be conflicts in terms of values and interests in the process of implementation.

Methodology

The qualitative research that informs this paper is conceptualized within the interpretive paradigm since it aims at understanding the thoughts of teachers and principals in times of implementing parental involvement in Hong Kong. This interpretive paradigm emphasizes naturalistic methods of inquiry within which the study was conducted. According to Lincoln and Guba (1985), naturalistic inquiry is appropriate for handling data ‘where there are multiple constructed realities that can only be studied holistically’ (P.37). The perceptions of two groups of teachers and two principals in two schools on issues concerning parental involvement constitute ‘multiple constructed realities’. The author recognized the need to adopt ‘theoretical sampling’ (Strauss, 1987, p.38), so two case study schools were chosen. In this regard, maximum variation to the analysis could best be achieved through illuminating the teachers’ perceptions towards increased parental involvement in these schools. In this qualitative research, the author employed the case study method as the main approach to explore and describe the situation of parent-school relationships. Case study here gives the context for the theories to emerge out of the descriptive case studies (Radnor, 2001). Going hand in hand with the case studies is the ethnographic method the author adopted because Woods (1986) and Creswell (1998) reiterates that ethnographic work facilitates interviews, conversations and participant observations to occur at any time, anywhere over a period and the researcher can study the meanings of behavior, language and interactions of the culture sharing group. The author had engaged in extensive work of data collection for half a year in each case study school. In addition to in-depth interviews with the teachers and principals, an intense participant observation took place. With consent from the principals and chairpersons of the Parent Teacher Association (PTA), the author had taken part in many activities such as parent days, parent-teacher conferences and PTA executive meetings during which field-notes were recorded.

Two pseudonymous primary schools (Tai Sang and Lai Mei) were purposefully selected for the study according to two principles. First, the school had already started inviting parents to help operate the school at different levels and a PTA was established. Second, students came from different socio-economic family backgrounds. In each school, twelve teachers involving in organizing parent activities or working with parents and their principals were selected for in-depth interview according to the procedures of purposeful sampling suggested by Lincoln and Guba (1985). After analyzing the transcript of the first interview, another teacher was chosen for interviews. Subsequently their views should be different from the previous one. Sampling is finished when the data obtained from previous respondents is repeated by additional interviewees.

The data were collected by semi-structured in-depth interviews (Creswell, 1998; Taylor and Bogdan, 1984). An aide-memoire (Burgess, 1985) was used to focus the interviews on the major research issue concerning the impact of implementing parental involvement on teachers’ value orientations. Probes were used to encourage the interviewees to describe their perceptions and experiences in details and to seek clarification constantly of their words. All the interviews were conducted in Chinese. The interviews were tape-recorded and the transcribed data were analyzed using coding.
methods (Strauss and Corbin, 1998). To design questions for collecting data through observations and in-depth, the author took into account both Ng’s (1999) and Epstein’s (1995) models as basic references. However, the author did not adopt any fixed types of models as framework of the study because the contexts of interpretive research are natural and must be taken as they are discovered. They are not contrived, constructed, predetermined, predefined, or taken for granted (Sherman and Webb, 1988).

**Findings**

The following themes emerged from the data obtained through interviews and observations. They described mainly teachers’ responses to the change of inviting parents to be involved in school.

**Personal beliefs of two principals in parental involvement**

Tai Sang Primary School had been established for thirty years. It was a catholic school situated at a housing estate. The school was composed of students from both middle-class and working class families. Understanding that parental involvement was one of the irresistible reforms under school-based management in this globalize era, Miss Wok, the principal of Tai Sang School, had already gone to Australia to learn the knowledge and skills of including parents and had a plan of school development where parents were regarded as partners in her school. She believed that when implementing change, there should be consensus among her teachers so she had arranged a number of professional development workshops on communicating and working with parents for the teachers. She said:

> Decentralization of power to parents and teachers to manage school is a trend in the 21st century. The world is changing rapidly. Teachers have to change too. I believe that regular contact with parents at different levels can help better develop parent-teacher relationships. A year ago, I went to Australia and found that parents were encouraged to be volunteers at school but they can be elected to be school governors. Now parental involvement is implemented by the Education Bureau and this is an irresistible trend. To make my teachers familiarized with skills of working with parents, I have invited some experts to conduct some workshops so that they can be equipped with necessary knowledge and skills. (Principal, Tai Sang School)

Miss Mok had had good relationships with parents. Every morning, she could be found standing at the school gate, greeting and chatting with parents. Here is what I observed:

> At the school gate, Miss Mok spoke to parents with a smiling face when they passed by. Parents looked happy to meet her and some stopped there to chat with her. They felt satisfied with what they were told. (Observation field note, Tai Sang School).

Due to Miss Mok’s deep beliefs in parents as resources, when being told by the Education Bureau to implement change, she immediately organized a preparatory committee for the setting up of a PTA at Tai Sang, members of which included parents mostly of middle-class backgrounds and four teachers. The principal thought that this was
a milestone that parents could participate in school activities and be volunteers. Moreover, the elected representative would become the member of the school board.

In fact, Miss Mok expressed her beliefs confidently, envisaging involving parents as one of her strategic policies. She expressed in the following way.

There is no denying that nowadays parents are all educated. The have duties and responsibilities in their children’s education. Parents are our invaluable resources. I expect that parent members in the PTA will help communicate with other parents. In addition we have a lot of close contact with parents through a lot of parent-child projects. (Principal, Tai Sang School)

Lai Mei Primary School was built in the 1980s. It was located in a narrow street in a satellite town. A vegetable wholesale market was situated next to the school. Though the school was old and it was noisy around, it was still welcomed by many parents since many students from Lai Mei School were allocated to a number of famous secondary schools. Mr. Wong, the principal, having established the PTA half a year ago, seemed not to agree with the innovation in his school. He said:

Innovation! Reform! Change! I have heard these words many times for many years. I do not think the Education Bureau has a thorough plan for our education. Remember how they implemented Target Related Assessment. Now, nobody mentions about it. This kind of change eventually interrupts the daily operation of my school. They have just borrowed ideas from the West without considering contextualizing the change. Now parents are invited to manage the school. I think it is beyond their ability and they should become volunteers first in my school. They need to be trained and assisted by my teachers in the PTA Committee. (Principal, Lai Mei School)

Mr. Wong seemed to have reservation on parental involvement in school. The PTA was intended to be a bridge for enhancing parent-school communication. However, teacher members did not turn up in parent events organized by the PTA. One of the teacher informants who took charge of operation of the PTA attributed teachers’ apathy in parent activities to the leadership capacity of the principal. He said:

No one from the school administration finds attending the meeting important. For the last two committee meetings, many teacher representatives have been absent. They are appointed to be officio members but it seems that they have no interest in working with parents. The senior management does not say anything and no one was blamed eventually. (Teacher informant 1, Lai Mei School)

Speaking overall, it can be concluded that the personal philosophy of Miss Mok on working with parents is different from that of Mr. Wong. Miss Mok’s welcoming attitude could serve as the impetus for implementing parental involvement in her schools whereas Mr Wong had not had any parent policy in mind and was not confident with parents’ involvement in school.
Teacher balkanization 1: Working with a vision

The qualitative data demonstrated that teachers were balkanised into different cliques with different ideological demarcations when parental involvement was introduced as educational change in these two schools. The first faction of teachers were those who generally receptive to the innovation of parental involvement. They took initiatives to formulate strategies in order to increase contact with parents. They worked with a vision of developing good relationships between parents and the school. In Tai Sang School, at least seven teachers interviewed demonstrated strong beliefs in working with parents whereas two out of twelve interviewed at Lai Mei had such positive orientations. They treated parents as partners and invaluable resources. The following were what they remarked in the interviews:

- It is my duty to serve the students and their parents. The more we communicate, the better students get benefited. (Teacher informant 5, Tai Sang School)

- I believe that home and school are partners. If this relationship develops, a sense of belongings among parents will also develop. Hence, many activities such as fund raising, seminars and student talent show will be easily implemented. They will assist us in many ways. (Teacher informant 11, Lai Mei School)

- On some occasions, I invite some parents to be ‘tutors’ to help those students with learning difficulties. By working together with parents, they know the situation and we talk about everything when they help children. Gradually, we develop consensus and relationship. (Teacher informant 6, Tai Sang School)

At Tai Sang School, some teachers interviewed enjoyed the atmosphere of collaboration. In order to realize the vision of parent-school partnerships, they demonstrated collegiality by working together for formulating appropriate measures of cooperation with parents. Two teachers had the following remarks:

- I have taught in several schools but I think colleagues get along best here. They are supportive and cooperative. We have always arranged meetings to exchange ideas about working with parents. When we come across problems to be resolved, we then invited our principal for a meeting. (Teacher informant 9, Tai Sang School)

- We work on team basis. I don’t mind to work extra if parent-school relations can be improved (Teacher informant 2, Tai Sang School)

The culture of collaboration can be reflected in my observation field notes describing how teachers prepared for the talent show the next day:

- There would not be anyone left at school after 6 pm usually. However, there were at least twelve of them working together for the talent show to be held tomorrow. They exchanged ideas and decorated the school hall with several parent volunteers. They did not express any blame but got hold of what their responsibilities was. (Observation field note, Tai Sang School)

Nias (1999) argues that many teachers’ dedication to education exceeds their desire for good working environment. Some entering the teaching field are even
motivated by the pursuit of altruism. With these striving attitudes mentioned above, most teachers at Tai Sang and a few at Lai Mei interviewed welcomed parents’ participation. They were committed to making their utmost to invite parents to participate in school events so as to increase opportunities of communication and develop good relationships between parents and teachers.

**Teacher balkanization 2: Resisting change**

In response to the innovation of parental involvement, some teachers were apparently isolation-oriented. They were conservative and kept themselves away from the imposed innovation (Fullan and Hargreaves, 1996). They are in lack of confidence and always suspect that opportunities arising from new ideas are always inaccessible. To play ‘safe’, they would rather adopt non-risk-taking (traditional) methods and yet, it does not contribute to school improvement. This kind of value orientation was apparent at Lai Mei School in the case study. One of the informants expressed in this way:

> I don’t care how parents are involved. I am getting used to change. It is of no use. (Teacher informant 8, Lai Mei School).

This teacher was not receptive to educational change and hesitant to know more about parents. He did not take initiatives to go beyond what confined them. As a result, the isolationistic and conservative attitudes reinforced his inclination to separate himself from the school ethos. Such ideological inclination was very obvious at Lai Mei School. At least six teachers informants interviewed expressed in a very protective way and there was one teacher interviewed at Tai Sang responded like this. One of them expresses that she was forced to work in the PTA committee with parents. She said:

> I am forced to be the PTA members. It’s mandatory. If there was a choice, I would rather stay away from them. They always complain (Teacher informant 7, Lai Mei School).

Derived from the data, this faction of teachers could not develop a vision to work collaboratively with parents and colleagues. They feared that parents’ criticism would affect their career prospect. Worst of all, they were frightened that parents’ participation would interfere with their daily classroom teaching. They were threatened by parents’ intrusion into their territory. The word ‘intrusion’ is of vital importance here as it suggests a lack of willingness and readiness (Grimmett and Crehan, 1992). Here it refers to those teachers who were not psychologically prepared to share part of their power with parents (Ng, 2002). The following were some of the words expressed by this balkanised group.

> I’m not afraid of parents’ complaints but I am afraid that it’ll affect my prospect. (Teacher informant 12, Lai Mei School)

The time is not ripe for parents to share the power of decision-making with us. The teachers and the members of the school board are not prepared to do so. Parental involvement implemented at this moment will cause conflicts between teachers and parents. The lay parents do not know the complexity of running a school. (Teacher informant 3, Lai Mei School)
I find that parents really want to be involved but there is one barrier. In fact, to a certain extent, they are intruding our turf. (Teacher informant 3, Tai Sang School)

Do you know that how much time we have spent on parents? I am not trying to object to parental involvement but what turns out is what we have done is at the expense of our time, our family days and our privacy. You see, it is no longer a place for teaching and learning. It’s now a place for parent gatherings. (Teacher informant 8, Lai Mei School)

In conclusion, some teachers filled with fear were reticent about parental involvement. It was easy for them to display scepticism about implementing change as experiences told them that they have seen it all before (Sikes, 1992). Whenever any innovations are externally imposed, some teachers present a certain reticence in its possibilities of success. It then becomes a potential resistance to change (Grimmett and Crehan, 1992). Evaluating the cost in terms of input of time, effort and foreseeable troubles such as increases in conflicts with parents and extra workload, some teachers became hesitant and reticent to participate in the reform. They were fenced in by the pre-conception that parents were trouble-makers. A number of teacher informants at Lai Mei School did not come with consensus to include parents. Some might choose to be left alone since they had no intention to accept the innovation.

**Teacher balkanization 3: Lacking knowledge and skills for the change.**

In addition to these two types of ideological demarcations identified among the teacher informants, the last balkanised teacher group emerging from the data was composed of those who supported parental involvement but lacked necessary skills and knowledge in times of change. For example, lack of communicative skills would reinforce teachers to avoid arranging conferences with parents. A teacher informant remarked:

I know they are my partners but many are more experienced and older than I. When I try to tell them what to do at home, they start speaking a lot to me. Therefore, I contact them when there is a need. (Teacher informant 10, Lai Mei School)

Lacking necessary skills prevented them from contacting parents as they feared confrontation with them. Diffident teachers might also avoid participating in any parent events. These avoiding behaviours may be owing to their feelings of being inferior to parents in terms of education background or professional knowledge. It results in a sense of low self-esteem especially in the conferences in which many parents are of middle-class backgrounds. In the interview, a teacher of less than five year teaching experiences at Tai Sang School expected to have professional training on skills of teacher-parent communication described:

I sometimes feel frightened when I meet middle-class parents. They are highly educated. They demand so much and even give suggestions to me on the methods of teaching or counselling students. I need to have more professional training on skills of parent-teacher conferences. (Teacher informant 12, Tai Sang School)

The teacher who was responsible for managing the PTA at Lai Mei School expressed a special concern on teacher balkanization during the time when parental involvement was being implemented:
The novice teachers dare not to make parents angry. They try to make everything comply with parents’ requests. However, they can be trained and eventually understand the essence of parental involvement. Some experienced teachers near the age of retirement do not care about what home-school cooperation is. They withdraw from any parent activities even though it is mandatory. These two types of teachers are not in a good position to enhance home-school relations. Those who have about five to ten years of experiences would dare to make attempts to adopt new ideas for change. (Teacher informant 1, Lai Mei School)

The above quotations demonstrate that teachers’ passivity and apathy towards parental involvement were attributed to shyness, fear and lack of self-confidence when meeting parents. It might trigger off the behaviour of avoidance of change that could reinforce teachers’ unwelcome attitudes towards parents’ participation. Fortunately, this balkanized faction of teachers did not exactly try to withdraw from change. Many of them were novice teachers according to the teacher informant at Lai Mei School. They performed differently from those aged and experienced colleagues who had no interest in parents’ participation. In fact, they would like to be involved while they were provided with incentives.

**Input of school leaders in managing change**

With reference to the emerging themes depicted above, it could be understood that it was impossible to assume all teachers working in a similar value orientation towards parental involvement in school. Teachers’ cultures were impacted by imposed change. As envisaged above, more teacher informants supported the change at Tai Sang but less did so at Lai Mei. There existed balkanized factions of teachers that turned out to be facilitating or restraining forces of change. In addition to these two factions, there were still a significant number of teachers who neither supported nor resisted change. Their values and attitudes towards parental involvement were not clearly and evidently defined in these two schools. They can be assimilated to be supporting forces for change if input from school leaders has been made. On the contrary, if the management does nothing and teachers are left to their own devices to respond to change, this anarchic situation will be detrimental to school improvement (Ball, 1987). Miss Mok of Tai Sang School knew the importance of motivating those unprepared for parental involvement. She had organized a series of workshops conducted by experts from tertiary institutions:

> They are not prepared yet for parents’ participation. Professional development programmes are necessarily to be organized so that they are equipped with knowledge of home-school cooperation and skills of communication. (Principal, Tai Sang School)

Miss Mok also encouraged her teachers to receive professional training after school by subsidizing part of the course fee. One of the teacher informants admitted that the subsidy was an incentive that helped motivate him to attend a refresher training course on parental involvement. He said:

> I need to upgrade myself in the rapidly changing educational context so I choose to learn more on Saturdays. Thanks to Miss Mok granting us allowances for the course. (Teacher informant 6, Tai Sang School)
As seen in Tai Sang School, though teachers’ capacities of responsiveness to change were dichotomized, a dominant collaborative culture was eventually developed due to the fact that many diffident teachers were given opportunities to equip themselves through professional development. Moreover, they are assimilated by those colleagues who were devoted to working with parents.

Balkanization easily causes conflicts among teachers and exerts negative impacts on school cultures. At Lai Mei School, however, the principal had no intention to conduct any professional development courses for his teachers although some teacher informants demanded such opportunity. Without positive input made by school leaders in times of change, some teachers would be acculturated towards being isolation-oriented and it would reinforce their inclination to separate themselves from the spirit of education change.

Discussion and conclusion

This interpretive study concludes that the process of including parents to participate in school, aiming at achieving the institutional goal of partnership, emerges as a far more complicated process as was expected. Parental involvement is a dynamic process. It involves the principle of give-and-take among teachers. It requires mutual trust and respect. In fact, Ng (2006) argues that a great deal of micro-politics has emerged among stakeholders during the process of parental involvement in school. To conclude, the externally imposed innovation of parental involvement indeed exerted influence on teachers’ value orientations in the case study, creating tremendous impacts on school cultures. The study has confirmed what Ball (1987) and Sikes (1992) has discovered is a demarcation of teachers’ ideological orientations in times of change. Three balkanised groups of teachers with different ideological orientations were identified among teachers. The first group consisted of those who supported and welcomed parental involvement in school whereas the second one was composed of those who showed resistance to change and would eventually isolate themselves from this imposed innovation. The third balkanised group of teachers was of majority who did not withdraw from the change but needed to be provided with incentives for implementation of change. Teacher balkanisation is detrimental to implementation of change as it may lead to poor communication and coordination among teachers (Ball, 1987). Take Lai Mei School as an example, many of the teachers demonstrated unwillingness to participate in parent events. Only a few were devoted to working with parents. When more teachers felt fearful and reticent, and secluded themselves from interacting with parents, the crisis of unsuccessful promotion of parental involvement would occur. This means that the effort of only a few teachers with positive attitudes towards parental involvement cannot help fill the gap. Unless the group demonstrating positive orientation forms a significant mass supporting educational change in the school, the change is seemingly to be abandoned (Ng, 2004).

To manage teacher balkanization in times of change, it is worth reiterating here that the school leaders’ personal beliefs and their positive intervention strategies are of paramount importance and significance. In fact, data from interviews and observations informed that whether parental involvement could be effectively implemented depended
on the result of the ‘wrestling’ process arising from demarcation of teachers’ ideological orientations within a school. ‘Wrestling’ refers to the assimilation process in which teachers’ various ideological orientations are mutually influencing one another in the school context. Due to the effect of assimilation, a dominant value which will facilitate or impede educational change will eventually appear. Here in the case study, three balkanised factions of teachers with different ideological orientations were wrestling at school. At Tai Sang School, some of those not being committed to welcoming parents were eventually assimilated by Miss Mok, the principal, as well as those teachers supporting the innovation. Encouraged by Miss Mok and affected by the atmosphere of collegiality, those diffident teachers were then assimilated to become a supporting force for change eventually. The attitude of welcoming parents gradually became the dominant culture of the school. It helped facilitate smooth implementation of parental involvement. As Lieberman and Miller (1984) point out, collegiality can help teacher learn and share from each other. These are the necessary qualities required of a change agent (Fullan, 1993). On the contrary, this collaboration culture was hardly seen at Lai Mei School. Though the teacher responsible for the running of the PTA possessed supporting attitudes towards parental involvement, many teachers were eventually assimilated to possess negative value-orientation toward change in the wrestling process since Mr. Wong, the principal, had not provided his teachers with incentives for change. No obvious input was made in the wrestling process. As Fullan and Hargreaves (1996) reiterate, teachers isolating from change will sustain educational individualism and conservatism.

The principal of Tai Sang School had already developed a school mission of including parents. She had deep beliefs in parents as invaluable resources and partners of the school. She had foreseen that early intervention strategies could ensure her teachers to be psychologically prepared for collaboration with parents. In conclusion, to ensure better management of balkanised teacher groups in implementing change, school leaders should take notice of the importance of assimilation effects on teachers’ value orientations. Early intervention measures in terms of providing teachers with opportunities for acquiring knowledge and skills and developing a culture of collaboration beneficial to change should be adopted. Prior to initiating change, teachers should be provided with sufficient professional development training in specific areas. To enhance teachers’ understanding and build capacities, it is not the quantity of professional development programmes that matters. Rather, what is important is the focus and quality of such programmes designed to help teachers address the innovation directly and effectively.

If teachers’ understanding of the reform is strengthened through all possible means, the gaps between different balkanized groups could be minimized and better understanding among the teachers and principals could be enhanced. Needless to say, the educational change is demanding on teachers as change agents who play a critical role in the implementing parental involvement. Strengthening professional development programmes and building teachers’ capacities are the first and foremost things that the senior management should consider to ensure that the change is a success.
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Activities Management for Developing English Listening Skill of the Sixth Grade Primary Students in Khon Kaen University Demonstration School (Suksasat)

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ABSTRACT

The purpose of this research was to develop English listening skill of the sixth grade primary students in Khon Kaen University Demonstration School (Suksasat). Target group were its 44 students from Unit F1/1, studying in the second semester of academic year of 2009, participating in learning activities for listening skill according to method of teaching language through communicative approach. This research was conducted through format of one experimental group which needed the post-study measurement.

Research instruments consisted of each 50 minutes length of 10 lesson plans for developing listening skill according to method of teaching language through communicative approach and measuring post-test for English listening skill. Data was analyzed through mean, standard deviation and percentage.

Research findings were found that the ability of English listening skill for at least 70% of students, participating in learning activities for developing listening skill according to method of teaching language through communicative approach, could reach score in which higher than 70% of the required criterion. Most of students could have English listening ability at “good” level.

Background and Significance of this Study

In the age of recognizing language, especially English as an international language, as a media of transferring information between human from one to another, people around the world could consequently contact and communicate by using English. It also was the significant tool for living daily life. English played an important role of living daily life for Thai people from the past to present day and will definitely keep going on in the future. Nowadays, English is famous to learn among a large number of Thai people for the purpose of career. Schools and academic institutions responded to this social need by providing English courses for all level of education including primary, secondary and higher education. This situation tended to be increased while the educational management of Thailand was stepping to the international context as the communication in English was more widely took place.

As one of the eight standard learning strands, the instructional management was mainly focused on the foreign language strand as the essential basis for all students to learn in order to enhance their human being and potential of creative thinking and work (Department of Academic Affair, 2008). As a result, English was very necessary to learn for communicating in daily life especially the listening skill which was mostly used among skills of receiving messages. In daily life, listening skill was used two time of speaking, four time of reading and five time of reading in average. The communication in one day required more than 50% of time on listening skill. It was also found mostly used in classroom, at work and at home. Students needed to develop the effective listening skill.
for comprehension as it was really important for the achievement in studying, business, career and personal relationship. Effective listening was skill for survival and could affect to quality of all communication channels throughout social being including family, school and work.

Sumitra Angwatthanakun (2540) said that listening was the significant skill for receiving message as well as the first skill needed to be taught. Listening for comprehension needed to be done before talking, reading and writing respectively. As a result, listening skill was the fundamental skill for better learning other skills. Listening was not only the needed skill for receiving messages but also the input instrument of facilitating learner and developing ability of speaking skill. The importance of listening toward the learning of speaking was we could quickly acknowledge the message of speaking language through the understanding in what we listened and read so listening skill was consequently as important as speaking and reading. Learner needed to learn how to listen as well as listened to English from difference resources in order to understand speaking language not only in the classroom context. Moreover, listening was not only important for the learning of our own language but also the other language. It was found that those who could communicate foreign languages appeared quickly understood to main idea of any issues. While they were hearing they could connect the relation between the voice and the emergent meaning.

Studying English in school required listening skill rather than other skill. Littlewood (1983) said that learners will spend most of time in listening foreign language rather than being the source of their own. Learners had to try understanding the message from speaker when directly communicated by face including a number of situations and media they needed to be quiet to listen such as radio, television and announcement. Students had to spend 53-90% of time in classroom for listening teacher or other classmates while teacher had spend 2 of 3 part of time for speaking. It could be concluded that students spent most of time in classroom for listening. It was reported that the Sixth Grade primary students required listening activity up to 60% in average.

As a result, listening was really important for learning language and it should be promoted to students to enhance their listening ability for being the ways of developing other skills afterward. Listening ability of students could be built by various related factors such as the set of key variables including listeners, speakers and circumstances. The ability of listening for comprehension also consisted of 4 factors including data or message, speaker, listener and physical environment.

Listening was influenced by both internal and external circumstances of receiver which was summarized to 5 categories including type of message, task, speaker, listening process and listener. Problems of listening toward studying English were variously defined by educators. Goh (2002) classified problems of listening English into 3 aspects. The first aspect was the problem of receiving in which students could not focus on the words they heard. They left the rest of further messages while thinking about meaning of what they just heard. They could not group the words, could not understand the meaning of the first part of message, concentrated too much to listening or could not concentrate at all. The second was the problem of analyzing words through grammar such as to forget what they heard more quickly as well as could not transfer to their mind, could not understand each part of input instrument due to the problem at starting matter. The third one was the problem of implementation such as understanding in words but was not the actual meaning from sender including the confusion in main idea of the message.
It was consequently found matching to Underwood (1989) who classified significant problems of learning listening English as follows: Listener could not control how fast the speaker communicated, could not repeatedly listen, limit of knowing vocabulary, could not discriminate signs of languages, facing the problem of interpretation and could not concentrate to listening. Anderson and Lynch (1988) separated the cause of listening without comprehension to 3 main aspects including problem of previous knowledge, problem of language and problem of listening.

As the problems of listening were found with the “low” level of students’ ability in listening, educators identified the cause of problems as follows: Mendelsohn (1995) said that the listening was not much interested due to the teaching of second language and foreign language were found with the poor condition. The teaching media for listening was not suitable for teaching real life listening. The content was not appropriate, easy to bore and out of the field. The teaching for comprehension had still not been widely accepted. Teachers did not have the confidence in teaching general listening. They did not teach how to listen for getting more skill of listening.

Supattra Aksaranukror (2534) said that the cause of mostly unsuccessful teaching English listening was students had no chance to communicate in English outside classroom. The lack of expertise teachers in this field including having not enough training and lack of developing listening media were also found. As a result, educators investigated ways of solving these problems by focusing on role of teachers and instructional media.

Goh (2002), Underwood (1989) and Rost (1994) mentioned about ways of solving problems that teachers should motivate and challenge students to hearing language from various resources through communicative purposes. They should provide feedback which will be useful for students. Students must be taught to understand skills and techniques of listening in which needed for successful learning. Teachers should realize the listening behavior in real life before linking to process of teaching English listening skill for students. Instructional media was important to effective instructional management for English as well as responding to learning of learners. Instructional media should be various and integrated formed through the purpose of attraction for fast learning. The first action for schools or related academics should do in providing teaching English for communication was promoting English teachers to develop innovation in which focusing on problem solving for improving and developing students to be more effective in learning.

Regarding to all views mentioned above, research team as the English teachers of Khon Kaen University Demonstration School consequently interested in studying through the question of “will students be better in listening English after getting involved in promoting listening skill?” Researchers formed the lesson plans through the activities of developing English listening skill of the sixth grade students in which focusing on each level of listening for comprehension. The usage of English for sharing and presenting personal data including daily life and close environment was made in order to connecting to learning standard and indicators based on Basic Education Core Curriculum B.E. 2551. The research findings will be the ways of designing activities for developing further level of effective English listening skill.
Research Objectives
To develop English listening skill of at least 70% of the sixth grade primary students in Khon Kaen University Demonstration School (Suksasat) to reach score of ability for listening skill higher than 70% of the required criterion.

Research Questions
Will English listening ability of at least 70% of the sixth grade primary students in Khon Kaen University Demonstration School (Suksasat), after participating in learning activities for English listening skill according to method of teaching language through communicative approach, be able to reach score higher than 70% of the required criterion?

Scope and Limitation of the Research
This research was conducted through one experimental group design. Target group were 44 students of Unit F1/1 from the sixth grade primary students in Khon Kaen University Demonstration School (Suksasat), studying in the second semester of academic year of 2009. Four learning units using in this research consisted of the School Trip, Seeing the World, Out and About and I Want to Be a Star in which distributed to each 50 minutes length of 10 lesson plans.

Definition of Terms
1. Management plan for English listening activities according to method of teaching language through communicative approach; refer to the lesson plan in which focusing on management of learning activities for practicing English listening skill based on Basic Education Core Curriculum B.E. 2551. Researchers created it through emergent content from analyzing curriculum of foreign language learning strand (English) for the sixth grade students. Activities for practicing listening skill, according to method of teaching language through communicative approach, were organized through steps as follows:

   Step 1: Warm up
   Step 2: Learning activities

   2.1 Pre-listening activities: looking and talking about pictures, seeing detail of messages or ideas, arranging or writing detail/ideas/recommendation, reading content which to be heard, reading questions of coming content, completing the dialog by filling the blank table of content, guessing or predicting detail of what to be listened, reviewing language and group discussion or class discussion.

   2.2 While-listening activities: marking or checking what they heard with the pictures, matching the pictures with what they heard, arranging pictures by order of content, drawing or completing the painting according to what they heard, acting through what they heard, forming pattern or arranging content through pattern they heard, performing through process or arranging list through what they heard, the usage of true or false marks to the message they heard, answering the question after listening by choosing the true answers to complete the blank form, exploring the wrong or different thing form listening, predicting the listening for finding out particular data.

   2.3 Post-listening activities: filling and completing the pattern/table, explaining more detail, arranging groups/level or type of things, pairing what they heard with content, explaining, additional note, summarizing the listening, the usage of detail of what heard to conduct activities of problem solving, arranging content
to be consecutive, telling the difference of relation between speaker, role play/imitate situation.

Step 3: Wrap up

Step 4: Measurement and evaluation

2. **Examination form for measuring English listening ability;** refer to the examination form created by researchers through the framework of content based on learning standard and indicators of Basic Education Core Curriculum B.E. 2551 for leaning strand of English for the sixth grade students. It was used for measuring learning ability of target students after participating in the instructional management plan in which focusing on activities for practicing skill of listening English. This examination form was multiple choices test which consisted of 4 multiple choices for each of 20 questions 20 scores.

3. **English listening ability;** refer to the scores of ability for listening English of the sixth grade students. These scores were the result of the post-test for measuring English listening ability using lesson plan in which focusing on activities for practicing English listening skill created by researchers.

4. **Students;** refer to the sixth grade primary students, studying in the second semester of the academic year of 2009, from Khon Kaen University Demonstration Schools (Suksasat).

**Methodology**

This research was the experimental research which aimed to develop English listening skill of the sixth grade primary students in Khon Kaen University Demonstration School (Suksasat) using the listening activities management according to method of teaching language through communicative approach. The processes of conducting this research were as follows:

1. **Research Design**
   This experimental research involved One Experimental Group Design for conducting.

2. **Target group**
   Target group were 44 sixth grade primary students from a classroom of Khon Kaen University Demonstration School (Suksasat) who studying in the second semester of academic year of 2009.

3. **Variables**
   3.1 **Independent Variables:** Teaching through management plan of English listening activities according to method of teaching language through communicative approach.

   3.2 **Dependent Variables:** English listening ability of the sixth grade primary students from Khon Kaen University Demonstration School (Suksasat) who studying in the second semester of academic year of 2009

4. **Research Instruments**
   4.1 Management plan for English listening activities according to method of teaching language through communicative approach for the sixth grade primary students in Khon Kaen University Demonstration School (Suksasat). There were 10 plans in which providing 50 minutes length for each plan.

   4.2 **Examination form for measuring English listening ability** of the sixth grade primary students. It was the multiple choices test which consisted of 4 multiple choices for each of 20 questions 20 scores.
5. Procedure of creating and developing research instruments

5.1 Management plan for English listening activities according to method of teaching language through communicative approach for the sixth grade primary students in Khon Kaen University Demonstration School (Suksasat) was created by researchers according to following detail:

1. Studied Basic Education Core Curriculum B.E 2551 in learning strand of foreign language (English);
2. Studied school curriculum of Khon Kaen University Demonstration School (Suksasat) in learning strand of foreign language (English) for the sixth grade primary students;
3. Studied the theory and principle of teaching included related paper concerning activities management for developing English listening skills according to method of teaching language through communicative approach;
4. Analyzed the learning standard, indicators and core learning strand of Basic Education Core Curriculum B.E. 2551 in the learning strand of foreign language (English) for the sixth grade primary students, conducted the creating of management plan for English listening activities according to method of teaching language through communicative approach;
5. Sent the plan of managing English listening activities according to method of teaching language through communicative approach for the sixth grade students to the experts for reviewing and improving before using to collect data;
6. Improved examination form through experts’ advice before taking to experiment with target students.

5.2 Examination form for measuring English listening ability, consisted of 4 multiple choices for each of 20 questions for post-test, was created by researchers throughout the steps as follows:

Step 1: Studied the ways of creating examination form through the paper of techniques of creating English examination;
Step 2: Studied the learning standard, indicators and core learning strand of Basic Education Core Curriculum B.E. 2551 in the learning strand of foreign language (English) for the sixth grade primary students;
Step 3: Created an examination form for measuring English listening ability in which consisted of 4 multiple choices for each of 30 questions;
Step 4: Sent the examination form to the experts for examining content validity by considering the accordance of each question toward learning objectives; improved examination form through experts’ advice before taking to experiment with non-target students of the sixth grade primary students of Khon Kaen University Demonstration School (Suksasat); analyzed the scores of each student to each question using the computer program of TAP for figuring out more than 0.20 of discrimination value(r), as well as the difficulty value(p) before picking up only 20 questions with difficulty value between 0.20 - 0.80 and more than 0.20 of discrimination value;
Step 5: Implemented the approval 20 questions of examination form to use with target group before taking result to the further process.

6. Data Collection

This research was conducted through one experimental group design. Researchers collected data by using the process as follows:
6.1 The experimental was conducted by using management plan for English listening activities according to method of teaching language through communicative approach for 44 sixth grade primary students as target group in the second semester of academic year of 2009.

6.2 After finishing management of plan for English listening activities according to method of teaching language through communicative approach for the sixth grade primary students, the examination for measuring English listening ability was then organized.

6.3 Scores resulted from examination form for English listening abilities were consequently brought to analyze.

7. Data Analysis and Statistical Data Analysis

7.1 Analyzed the examination form for measuring abilities in listening English after studying through plan of managing English listening activities, according to method of teaching language through communicative approach for the sixth grade students, by figuring out difficulty value (p) and discrimination value (r) using the computer program of TAP.

7.2 Analyzed the scores of student abilities in listening English after studying through plan of managing English listening activities, according to method of teaching language through communicative approach for the sixth grade students, by figuring out percentage (％), mean (X̄) and standard deviation (S.D.).

References


The Development of Knowledge, Understanding, Skills and Attitude by Using Jigsaw Teaching Method

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ABSTRACT

The objectives of this research were to: develop knowledge; understanding; skills and attitude, study the problem and suggestions on learning and teaching entitled ‘Standard of Educational Career’ by using jigsaw method. The target group consisted of 20 third year students who were majoring in general science and studying in classroom administration management subject in the first semester of 2009 academic year. Dependent variable was jigsaw method and independent variables were the students’ knowledge; understanding; skills and attitude. The instruments used in the research were learning activity plan, a test paper, worksheets, an appropriate assessment form and group interview record. The statistics used to analyze the data were mean, percentage, standard deviation and content analysis for quality data.

The results of development of knowledge and understanding revealed that 75% of students could pass the test. For skill development, most of students who had worked with worksheets activity were rated at excellent level. The results of students’ attitude found that the activities were suitable at a high level. The target group also suggested that the size of each group should not be too big. The style of this assessment should be used by other subjects. The media should be good condition. The learning atmosphere should occasionally be changed. And finally the instructor should be flexible about spending time more than this.

Keywords: The Development of Knowledge, Understanding, Skills and Attitude, Jigsaw Teaching Method
Needs for competency development in the information technology utilization by the Vocational Education Commission college teachers, Bangkok Metropolis

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ABSTRACT

The purposes of this research were 1) to survey the competency in the information technology utilization as opined by The Vocational Education Commission college Thai language teachers in the aspects of knowledge, performance skills, and attitude, 2) to study the needs to develop the competency in utilizing the information technology utilization by The Vocational Education Commission college teachers in the aspects of knowledge, performance skills, and attitude, 3) to study the ways to develop competency and expectation in utilizing the information technology utilization by The Vocational Education Commission college teachers. The sample group which was multi-stage random selected was 398 Thai language teachers in The Vocational Education Commission colleges in Bangkok metropolis. The research instrument was a set of questionnaire. The data were analyzed by means of percentage, arithmetic mean and standard deviation. The results of this research were as follows: 1. Thai language teachers opined that they had lowest competency in the information technology utilization in the aspects of knowledge and performance skills and low competency in the attitude aspect. 2. Thai language teachers highly needed to develop the competency in the information technology utilization in the aspects of knowledge, performance skills and attitude. 3. Thai language teachers opined that the ways to develop the competency in the information technology utilization as follows: frequently practice in using information technology, participating in information technology training workshop, school support for at least one set of information technology in Thai language division, information technology specialized personnel and masteries or of instructional production, The expectation in utilizing information technology of Thai language teachers were that systematic information organization in colleges and students' ability in use of information computers as information resource

Keywords: Information technology, competency

Introduction

Rational

Progress of science and technology, especially computers today have carried out a rapid and continuous a. Due to the development of information technologies to link the news all over the world cause a Borderless World. Cause flows of culture and knowledge science new significant changes are driven to the Thai society change through economic, social, political and other significant was the development of agriculture away social services to industry and more. Science and technology has to play their role to daily life is
not in any greater way to learn, so using a computer for basic survival and to development is necessary. Thai is the national language taught by teachers today has to be modified to be consistent with the teaching of technology change. The teachers will transfer knowledge to students recognize different content alone does not cause interest and inconsistent with the nature of language learning.

Office of Vocational Education Commission has modified diploma course in 2545 Revised in 2546 AD, especially Thai and the training of teachers of both subjects. Using teaching materials, teaching methods and assessment of student academic achievement. To achieve the learning objectives of the course. Using the technology education activities may be made in various forms such as training in the classroom and outside the classroom to discuss research and writing reports. Implementation language playing the role plays. By the appropriate time and with a greater activity. However, teachers may be adapted for other ways to meet the situation. But always be aware that how a student should develop the ability and objective manner by most another major focus of activity is the format and questions. That looks favorable for students to practice creative thinking and the idea of more students to lead to self-reliant in the future.

From the text above. Teaching and learning process will achieve the objectives of the course set or failure depends on the performance of teachers as Sumit adjective Korn (2518: 130-132) has mentioned. Teaching the teachers that "Is the most important mechanism to bring the curriculum to meet the goals of the course and use the appropriate method" and compliance with major Wichai Wong (2537: 9) is said to teachers. "A developer courses classrooms is very important to make course objectives defined or not is up to the teacher is important, it may be said that the people most important to affect the quality of education is." Teachers "and similar courses in Thai to achieve the objectives set or not is up to the teacher's performance

Performance measurement and evaluation of the Thai language teachers is essential in order to learn to find a way to rectify defects. This will help the Thai language teaching more effectively. In particular, teachers in diploma (certificate) because the Thai language teaching starts in the Thai language clear. Is an important starting point in order to allow students the appreciation of Thai and cultivating attitudes of Thai students to be interested in learning Thai to a higher level. This will affect academic achievement Thai language.

The research therefore intends to conduct research. Thai teacher performance level diploma (certificate) in college under the Vocational Education Commission that the competency level of teachers in Thai diploma (certificate) by way of So Fri. Focused on using computer technology in the knowledge skills and attitudes that the action level. In order to know the current state of the Thai teachers competency. College under the Vocational Education Commission. In Bangkok. That Thai teachers practiced the same or different?. And practiced each of the level. Has led to research into recommendations to relevant agencies. To find ways to improve efficiency and to improve teacher Thai To be taught Thai language by using the computer more efficiently. To achieve the objectives of the course of Vocational Education Commission assigned to the Ministry of Education. Concept to do this research. The research has studied the concept of Office of Vocational Education, which defines the competencies of Thai teachers using computer technology in three areas: knowledge, skills, practices and attitudes. Objective 1) to survey the competency in the information technology utilization as opined by The Vocational Education Commission college Thai language teachers in the aspects of knowledge, performance skills, and attitude, 2) to study the needs to develop the competency in
utilizing the information technology utilization by The Vocational Education Commission college teachers in the aspects of knowledge, performance skills, and attitude, 3) to study the ways to develop competency and expectation in utilizing the information technology utilization by The Vocational Education Commission college teachers. Guidelines (regulation) of survey research. Population and sample: population used in this study is to teach Thai language teachers diploma level. (Vocational) in Bangkok in 2552 year samples used in this study is to teach Thai language teachers diploma level. (Vocational) in Bangkok in 2552 academic year of 384 people using multistage random sampling. The comparison table of the sample sizes Krejcie and Morgan and by simple random sampling (Simple Random Sampling).

**Tools:** tool used in this study was questionnaire competencies of teachers in Thai are now divided into two.

Part 1 contains the questions about the status And general information of the respondents were under the sex and teaching experience in using computer technology.

Part 2 is a query about the performance of the Thai teachers. Look around the five-level scale is divided into three in total 50 items are classified as either side.

1. The knowledge of Thai language of Article 20.
2. The performance skills of 20 items.
3. The attitude of 10 items.

**Data collection** (gathering) The researcher distributed questionnaires to a sample And collect data by performing the following steps. Researcher sent questionnaires to teachers in Thai. College under the Vocational Education Commission. All schools in Bangkok that the sample of 384 mail messages in January - March 2552 and received assistance from the sample of respondents and returned by mail of 370, accounted for 96.35 percent.

**Analysis:** data analysis using statistical software packages as follows.

Find the basic statistics such as mean percentage and standard deviation of a list item and the overall questionnaire.

**Conclusion:**

The results are as follows: 1. Thai language teacher to comment that they practiced using computer knowledge. Skills practice least two and less attitude. Thai language teacher needs to develop competency in computer skills and knowledge in practice. Attitude and three more in every respect. Thai for teacher commented to develop the capacity of the computer. Computer training often Participation in training operations. Colleges encourage the Thai language courses in computer use at least one computer and computer support personnel. Equipment in the production of materials. And expectations of teachers in using computers to make the Thai school system is an information system And students can use the computer as a source of research data

**Suggestions:** suggestion of using research to use

1. Teachers should promote Thai Have the opportunity to develop knowledge of new techniques and science of teaching, such as innovation of teaching and learning.
2. Thai language teachers should explore or evaluate self-consistently. To determine what the subject is. Problems in teaching Thai to be directions and information to be used in teaching Thai in accordance with the problem. Needs of local conditions.

3. Thai language teachers should identify opportunities seminar about learning Thai To competency, knowledge of Thai language skills and processes. Operational language and attitude of Thai To be in a higher level. And apply knowledge in various fields to improve teaching and learning for greater efficiency.

4. Concerned agencies should promote the training workshop to learn about the techniques and methods taught in the new format so that teachers have the opportunity to develop their own keep.

**Suggestions for research next time.**

1. Should study the factors that influence the performance of teachers teaching in Thai language in Thailand. Morale at work. Support from administrators and the media with other devices etc.
2. Education teacher competencies Thai Level diploma (certificate) under the other as the Private Education Commission. Department of Non-Formal
GRADE 10 STUDENTS’ MENTAL MODELS OF CHEMICAL BONDING USING ANALOGY TEACHING APPROACH: FOCUS – ACTION – REFLECTION (FAR) GUIDE

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ABSTRACT

This study reported about grade 10 students’ mental models regard chemical bonding after teaching with analogies approach through FAR Guide technique. Participants were thirty nine grade 10 students, in Nonkrowittaya School, Chaiyaphum, Thailand. Research instruments included lesson plan about chemical bonding based on analogies approach through FAR Guide technique, questionnaire about chemical bonding and semi-structure interview. Finding revealed that after teaching and learning with analogies activities students’ mental models have changed from non mental model to phenomenon model, character-symbol model and inference model in some concept and there were 3 students have scientific model about Formation of covalent bond, bond length and bond energy and metallic bond.

Keywords: Mental Models, Chemical bonding, Analogy

Introduction

Educational management focuses on the importance of knowledge, thinking, competence, virtue, learning process, and social responsibility to develop balance of human beings by learner-oriented principle. All people have ability to learn and develop themselves. It extends to promote students to spontaneously and fully develop themselves and to realize the importance of self-awareness and relation between themselves and the society as well as scientific and technological knowledge and skills. (Ministry of Education, 2002)

The findings derived from the research of Piaget, well-known psychologist, are students need materialistic things and they want to exchange their ideas to expand their own thought and learn from the thought of what they did. Therefore, good learning activities should be the one facilitating knowledge creation. (Nuanjit Chaokeareratipong, 2002) as the theory of Constructivism mentioned that knowledge is what individual creates by integrating the existing knowledge into new knowledge and build representative of new knowledge or experience in their mind and consequently the human perception is defined by individual’s previous knowledge, belief, theories, and expectations. Understanding of a particular event is not only dependent on that situation, but also meaning interpretation of that individual’s situation. (Wancharee Mungsingh, 1993 cited by Wilawan Larpboonrueng, 2000) what individual creates in his mind to represent the object, conception, or any of these processes namely Mental Models that students use the mental models to illustrate reasons, describe, explain, predict the phenomenal, or build models in a variety forms to communicate their conceptions to
others or to resolve the problems. Whenever the model of understanding that they have cannot explain new experience, students will not satisfy the model of understanding they have and may improve or restructure the model of understanding different from the previous one. (Glynn and Duit, 1995 cited by Wang, 2007) cognitive psychologists suggested that the Mental Model is an important component in development of knowledge and skills. (Frederiksen, White and Gutwill, 1999 cited by Sumalee Chaichareon, 2006) Thus, it is important that teachers have to explore the teaching activity managing methodology to support students in creating their own knowledge and learning with their full potential individually such as what Else, Clement and Rea-Ramirez (2008) mentioned the application of Analogy as a tool to support science learning that teachers often use to compare to help the understanding of students in new abstract knowledge with comparing to what students familiar with or fitting to previous knowledge base and experience of students, and to better understand the content, for example, in biology textbook there is a Analogy between cells and different parts of industrial factory contributing better understanding in cell components and their different functions because different parts of the factory are similar to cell components in terms of functionality. This Analogy makes students be able to model the pattern of self-understanding about idealization as reported by Hatano and Inagaki (1988 cited by Else, Clement and Rea-Ramirez, 2008) found that students construct the model of understanding by using Analogy of what they have known to use to predict about animals and plants in science for chemistry. Johnstone (1991; 1993 cited by Wang, 2007) stated that this subject has 3 levels of knowledge components:

1) Macrochemistry is visible or touchable knowledge as physical phenomenal.

2) Submicrochemistry is knowledge derived from explanation of visible or touchable things insight to atom and molecule level probably with involved kinetic theory and

3) Representational chemistry is knowledge in utilizing levels of such as symbols, equations, relative quantity, and calculations as representative of invisible objects. Chemical experts can link their knowledge from a certain level to another level but for students, the ability to do that thing is rather difficult such as learning about conception of chemical bonds commonly being a problem to students and being developed to variation of conceptual understanding. (Coll and Taylor, 2002) there is a research specifying the cause of making students have a variation of conceptual understanding about chemical bonding such as the study of Boo (1998 cited by Pabuçcu and Geban, 2006) suggested that students have various level of understanding error about chemical bonding and the understanding is argued to the change. If the teaching method is content based curriculum focusing on knowledge and teacher is only the contributor. This sort of teaching does not promote students to have consistent knowledge and not stimulate students to learn because knowledge is not taken into the students’ mind by any means that teacher just provide the knowledge. So, teaching style change can allow students have better understanding consistent conceptual knowledge as Orgill and Bodner (2004) mentioned that the chemistry is a subject having abstract content with difficulty in understanding for students. Even it concerns about daily life of those students, then, teaching with supportive analogy can contribute the students to think more clearly and help them see the picture and easier understand the abstract content.

Science educators such as Coll and Treagust (2002) suggested that the Analogy is suitable for teaching the chemistry especially atom structure and chemical bonding since its content is difficult to understand and is situated at the level of atom and molecule. The
ability to imagine it is significantly required. Moreover, Harrison and Coll (2008) also said that mostly teachers using the Analogy often does not regard post-teaching results whether students understand conception. Any teacher without advance preparation of comparative teaching and non-emphasizing differentiation between things using for Analogy to learned conception of students may cause students’ misunderstanding of such that. Hence, to prevent the comparative teaching from conceptional misunderstanding and to allow comparative teaching be systematic and highly efficient, several scientists conducted studies and created comparative teaching models such as Zeitoun (1984 cited by Thiele, 1995) created generic model of comparative teaching (General Model of Analogy; G.M.A.T.) composing of 9 steps, Glynn (1989, 1991 cited by Thiele, 1995) built comparative teaching model named Teaching – with - Analogies Model comprising entirely 6 steps. Furthermore, there is an preparation introduction for teachers in systematic and efficient way of comparative teaching, for example, Harrison and Coll (2008) presented steps for comparative teaching preparation called Focus – Action – Reflection (FAR) Guide. There are numerous reports from outcomes of comparative teaching. For instance, the research about Analogy method in chemistry of Gabel and Sherwood (1980 cited by Thiele, 1995) investigated the relationship between Analogy method usage and students’ ability level of abstract reasoning and found that chemistry teaching by incorporating Analogy method can effectively develop the ability level of abstract reasoning of poorly students.

For Nonkrow Wittaya school, educational achievement of students in chemistry is rather low as suggested in 1st semester and 2nd semester of 2008 Nonkrow Wittaya school evaluation report with GPA of 1.41 and 2.43 and 1st semester of 2009 with GPA of 2.61 and regarding results of conception survey of chemical bonding conducted by the author to the 10th grad students in 2nd semester of 2008 by using 14 concepts in Wilawan Larpboonreueng’s (2000) misconception survey found that students have all elements of misconception.

As mentioned in the report survey and outcomes of conception survey of chemical bonding conducted to students in Nonkrow Wittaya School and found that they have all elements of misconception, maybe it causes from students’ use of Mental Model different from what scientists have. (Coll, 2009) The author was interested in using the comparative teaching model according to FAR Guide to develop student conception of chemical bonding by studying the characteristics of student Mental Model before and after to be information for further development and learning management plan modification to suite for characteristics of student Mental Model.

Research objectives

To study Mental Models of 10th grade student in chemical bonding after using learning management plan with comparative Analogy according to Focus – Action – Reflection (FAR) Guide.

Research methodology

Methodology

This research is a qualitative study focusing on interpretation based on phenomena in schools as a research source. The author holds the principle of understanding of phenomenon with participant points of view.
Participants
Grade 10th students in 4/2 classroom of Nonkrow Wittaya school, Chaturas district, Chaiyaphum province studying in 2nd semester of 2009 in total of 39 people.

Research tools
1. Research tool i.e. learning management plan with analogical teaching method regarding FAR Guide (Harrison and Coll, 2008).
2. Tools for data collection i.e. chemical bonding conception survey using for pre- and post-study mental model attribute data collection and semi-structural interview questionnaire for representative students selected from response grouping based on the criteria of Lin and Chiu (2007).

Data analysis
Students’ mental model data analysis the researcher organized the response group derived from the conception survey of pre- and post-study in chemical bonding in accordance with the criteria of mental model classification of Lin and Chiu (2007) as described in the following models.

1) Scientific Model is a metal model in scientific conception attributes such as law of octet, valence shell electron pair repulsion, and molecule polarity and shape. Students use these concepts to answer the survey and interview correctly.

2) Phenomenon Model is a simulation model or physical phenomenal or macro characteristics used to consider the question and find out the solution about multidimensional conception.

3) Character-Symbol Model is a model to recognize terms, symbolic usage in consideration or self-explanation.

4) Inference Model is a model connecting to existing scientific knowledge but not perfect of students and the students have only some of concepts but try to use the knowledge to conclude the defined events or situations due to it is partially knowledge so it is not respect to scientific concepts.

After that, there was an appointment with students from response groups by using semi-structure interview with 40-50 minutes/each both before and after the study. The interview was extracted and analyzed incorporating data collection from additional sources such as analogical activity worksheet and student works such as paintings done by students to support the survey of conception (if any), exercise to be used for conclusion and interpretation about metal model of the students including descriptive presentation.

Results and Discussion
The metal model of the students about pre- and post-study of chemical bonding by using analogical teaching methodology suggested that, for pre-study of chemical bonding, the researcher cannot specify the pattern of understanding or the mental model of the students (Non Mental Models; NM), especially, the concept of covalent bonding, bonding length and energy, covalent molecule shape, molecule polarity, and molecular bonding because students did not answer anything in the questionnaire by giving some reason that they never know about that concept except for the concept of metallic bonding. In pre-study, it was found that students have a metal model of Phenomenon Model (PM) and Character – Symbol Model (CM) when additional interview be added, it was found that students have knowledge about metallic material before because metallic material is
available in their daily life, visible, and touchable. After using analogical activities for teaching chemical bonding, the mental model of students was being changed i.e. it changes from unspecified mental model to PM since students use reasons or phenomena extracted from analogy to facilitate the answers of those questions of conception survey, doing exercise and responding the interview or change of the mental model of Inference Model (IM). As analogical activities make students more interested in such lessons but not all, the collect survey responses were not completed wholly. Partially it was changed to be the mental model of CM by using term or symbolic remembering by students with previous learned knowledge or recognition from the analogical activities to support the answers of the questions and found that there are 3 students posse the mental model of Scientific Model (SM) about conception of covalent bonding introduction, bonding length and energy, and metallic bonding i.e. students use scientific concepts to support their answers or explain the reasons according to what Glynn (2007) mentioned that analogy is a pattern to initial understanding to develop learning with limitation of students to be meaningful knowledge. The analogy plays important role for students to create knowledge by themselves. Once students have enhanced mental development, they will be able to improve simple analogy to be more complex and powerful understanding. Each analogical activity can better understanding of the students. And some activities such as balloon arrangement, rope pulling can make fun for students and make lessons not to be boring. So, there are some supportive factors for students to change the mental model or to help students understand more studied conceptions rather than selection of things for comparing the familiar and accustomed things, it should be the interesting, fun, exciting, and not boring activity according to the research of Panagiotis and Georgios (2004) that the analogy should be the interesting and no boring activity because happiness is an importance factor to encourage students to learn efficiently.

Conclusion
After using analogical teaching method based on FAR Guide, it was found that the student mental model of chemical bonding have 5 different categories: 1. Unidentified mental model or Non Mental Model (NM) 2. Character – Symbol Model (CM) 3. Phenomenon Model (PM) 4. Inference Model (IM) and 5. Scientific Model (SM). Most of the mental models of chemical bonding of target students are in PM and CM and then the research suggests that analogical activity is playing important part for students to understand the abstract concepts easier. Most of students prefer to do analogical activity because they are not necessary to read only textbooks. They can use what they are familiar with to help them understand the content they are studying. Moreover, students can think what to be used in analogy by themselves. If they know the key matter of concepts they are interested in (target).

Suggestion
1. In learning management, using analogical teaching method based on FAR Guide as the first priority is the design of suitable analogical activity for students by concerning previous student knowledge affecting learning ability of the students.
2. Teachers should realize the basic concept or previous student concept they are studying because well-established knowledge and familiar thing comparison can promote analogical activity efficiently.
3. Using analogical teaching method should consider simplicity of the studying concepts because some conception does not need any analogy. Adding analogy may cause more confusion to students.

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Working Memory and Learning Achievement of Grade-10 Students from Project-Based Learning

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ABSTRACT

Recently, most scientific evidence pointed out that working memory is a key factor of success and achievement in learning. Unfortunately, less scientific documents study about the effect of teaching model on the working memory and achievement. This study is a randomized control group pretest-posttest design. This research aimed to compare achievement mean score and working memory mean score between control and experiment group and study correlation between achievement score and working memory score. The sample group was Grade-10 students, from Nongbuapiyanimit School. Which 20 students were recruited in the second semester of the 2009 academic year. They were simply randomly divided into 2 groups on match pair concept using Science GPAX in Grade 7-9. They were obtained the classical teaching model and project based learning model at a period of 4 weeks, respectively. All subjects were assessed the achievement via the achievement test. The working memory was evaluated using computerized battery test which evaluated the working memory in 4 domains consisting of power of attention, continuity of attention, speed and quality of memory. Data were analyzed using student t-test and Pearson correlation.

The findings revealed that 1) the mean achievement score was no statistically significant different at .05, 2) the mean working memory score was statistically significant different at .05 in numeric working memory test and 3) there was else shown no correlation between mean achievement score and mean working memory score.

Keywords: Working memory, Achievement, project based
Administration according to Good Governance Principles of School Administrators under the Office of Kalasin Educational Service Area 3: Multi Cases Study

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ABSTRACT

The research aimed to study the phenomenon of the administration through principle of good governance for school administrators under the Office of Kalasin Educational Service Area 3. The method of multi cases study was used in two schools including large size school board and small size school. Instruments included document investigation, observation and interview. Key informants consisted of administrators, teachers, chairperson of school committees and student committees. Data analysis was descriptive. Research findings could be concluded as follows:

1. A case of large size school, it found that 1) administrators organized the academic management based on framework of school curriculum, the accuracy, fairness, honesty and justice. Each department of learning strands was allowed to involve in self-management including the reveal of learning achievement in order to creating the confidence of learner’s quality. 2) administrators managed budget through the framework of government regulation on financial and procurement affairs. Financial budget was planed before distributing by regarding to annual action plan. Budget distribution and payment was consequently examined by Internal Audit Commission. 3) administrators conducted the management of human resource affairs through rules and regulations of original affiliation regarding to the principle of competence, security, equality and political neutrality. Administrators also behaved as a good role model in good performance and honesty. The decentralization of human resource management was made to learning strands for managing themselves. 4) administrators emphasized on good system for office management by providing clerical work system with hi-technology in order to storing and preparing information for easy access by all related users. The usage of available resources were worthy, economical and extremely beneficial.

2. A case of small size school, it found that 1) administrators considered the framework of curriculum with intensive content by providing tutoring activities. They also implemented the principle of participation in administration and the performance through professional ethics. 2) administrators followed the government regulation on financial and procurement affairs so the budget was distributed and paid through the framework of action plan. The Purchasing and Hiring Commission was appointed to examine and control, by considering evidences of purchasing and hiring, the performance of budget distribution based on plan of each project. 3) administrators conducted the management of human resource affairs by following rules and regulations of original affiliation regarding to the principle of equality. So there was no financial benefit toward work of public interest. It also emphasized on the participation of related section, as well as the important of teamwork and public acknowledgement throughout its process. 4) administrators clearly, conveniently, quickly and briefly determined the position description and process of clerical work as efficient as the concept of one stop service. The service of facilitating equipments and venues including the responding to community support were also organized by administrators. They monitored and followed up the usage and maintenance of building, area and equipments to be ready for use as effective and worthy as it could be.

Keywords: Administration, good governance, School Administrators
Results of Analytical Thinking Skills Training through Students in Computer Language Program Writing Course 1

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ABSTRACT

This research aimed to study the results of analytical thinking skills training through students in Computer Language Program Writing Course 1. The sample of 44 first year students at a branch of computer science from Science and Technology faculty of Maban Chom Bueng Rajabhat University in the first semester of the 2010 academic year was selected by purposive sampling. The instruments used for this research were the process of analytical thinking skills training and student questionnaires.

The proposes of analytical thinking skills training consisted of brain storm chart creation step, concept chart creation step and flow chart creation step.

The results revealed that 1) students’ analytical thinking skills related to academic performance 2) students’ analytical thinking skills and academic performance were higher 3) students have a good attitude towards the process of analytical thinking skills training. Therefore, analytical thinking skills training will be beneficial through students in Computer Language Program Writing course 1.

Keywords: Analytical thinking skills, Process of analytical thinking skills training, Computer Language Program Writing course

Introduction

BACKGROUND AND RATIONALE

From concept of National Education Act B.E.2542 (NEA) of Thailand. Which is considered a major educational reform in Thailand. It is a management concept that learning is a learner center. Learning process by the content and activities in accordance with their interests and aptitudes of students. Especially to provide analytical thinking skills, process-oriented practice that students think of ideas to make. (Chaowakeeratipong, 2001)

From the educational quality assessment of the Office of Certified Standard and Guaranteed Quality in 2005 and 2007, if was found that the educational quality in term of the standard of analytical thinking ability, was still needed to be improved. It also showed that there would be an effect to undergraduate learner level. If the learners had low competency since they were young, it would be difficult to have self improvement when they become adults. Situations that Thai students have lower analytical thinking skills was revealed by the National Institute of Educational Testing Service. It was shown by the assessment of the...
Ordinary National Education Test (O-NET) in academic year 2008. P.6 students got the average scores in Thai and mathematics less than 50%. In addition M. 3 and M. 6 students got the average scores in 5 subjects (Thai, English, social science, science and mathematics) less than 50%. Furthermore, M. 6 students have got those scores continually for 4 years. That was not better because they did the tests accidentally as well as the tests focused on analytical thinking where the learning-teaching process focused learners accustomed to multiple-choice tests or multiple-choice test answers were not familiar with analytical thinking. (Komchadluek, 2009)

For the above reasons, Board of Education Policy Reform in Decades performed the action plan for education reform in decade 2 starting within the academic year 2010 by considering indicators of success or the main focus of education reform in decade 2 that a super-indicators will lead the changes through learning-teaching management and the development of educational organizations in that time with 4 indicators as the followings : 1) Top thai Education on the world stage will be better than the top over 40 which is obviously determined how the ranking will be moved up to 2) Thai children seek more knowledge and learning 3) Thai children eager to have good mental, moral and ethics. 4) Thai children have to be able to think analytically. (Komchadluek, 2010)

In the current study writing computer programs for first year students of Rajabhat University. Teachers face the problem of students coming to study in these fields. Since it was found that overall students in high school graduates with analytical thinking skills are low. And low academic achievement among the main courses. This course makes students feel that learning and understanding difficult and learning process is very slow. In the last, most will find that most students in the achievement of this remained low. In addition, the study found that Analytical thinking skills related with achievement in learning computer programming. (Montaku, 2006) That is computer programming skills requires a highly analytical thinking to analyze problems, analysis and design algorithm.

Research shows that Analytic thinking skill that to be necessary for writing a computer programming consisted of : 1) Comparing with Logical condition,2) Deduction thinking, 3)Applying, 4)Organization, and 5)Comparing with Mathematic condition. (Montaku, 2007) Students must be able to specifically describe the variable, input, process, output, followed by the Flow chart, writing and programming each problem. (Montaku, 2008)

And the demands as required by learners towards a Computer Programming course are at high level consisted of : 1) activities to train thinking skills about the taught contents, 2) Instructions are given in a step-by-step manner.3) Have answers for all exercises, 4) various examples for the same contents, 5) questions from real situations, and 6) can be applied in real life. (Montaku, 2009) Including before the students make them exercise instructor should explain and demonstrate.To associate that each type of analytical thinking skills can be applied to program a computer to do. (Montaku, 2009) Therefore, methods or procedures for practicing of analytical thinking skills should be necessarily fundamental to develop students and will be beneficial for learning in Computer Programming course.
REVIEW OF LITERATURE

Analytic Thinking

Analysis means delineating elements of something into the parts to find something that is made from, what element is made of, how to be assembled and how to link the relation. Moreover, Analytical thinking can defined that the ability to discriminate various elements of something or any matter and determine the reasonable relationships between those elements to find the real cause of what happened (Chareonwongsak, 1999).

Analytical thinking is the abstract separation of a whole into its constituent parts in order to study the parts and there relations(Farex, 2010). Furthermore, Bloom Taxonomy defined the Analytical thinking in the words as follows: analyze, arrange, connect, devide, separate, classify, compare, contrast, explain, select, order, breakdown, correlate, diagram, discriminate, focus, discriminate, illustrate, infer, outline, prioritize, subdivide and points out.(Larry J, & Annette L. 2010)

In conclusion, analytical thinking means ability to take charge of human events or problems or things to separate the small details. Details can be divided into smaller groups divided according to relevance. To help determine the reason. Each can be arranged prior or priority of detail by the sub-way comparison sort by mathematical methods, logical sciences or experiences. To help determine the reason. Including the ability to map out the conclusion that the structure associated with the system.

IMMCIP process of KMUTT

There are 2 process in 16 process of the Interactive Multimedia computer Instruction Package process (IMMCIP) which was developed within the Faculty of Industrial in Education and Technology of King Mongkut’s University of Technology Thonburi (KMUTT) there are Brain storm chart creation and Concept chart creation. (Teeranathanakul, & Kaittikomol, 1999)

Brain storm chart creation is a brainstorming technique applied to capture the subjects which should be to receive many subjects. Those may be repeated or not relevant to what you want. We will cut off later. The steps start from writing a story to analyze in the middle and then raise the subject organized by lines linked from the main subject and to ensure the integrity of what they need to be repeated approximately 3-5 around. Concept chart creation of the subject is a group derived from brainstorming as a group or category related by bringing the brainstorm chart to study the accuracy, compliance with the theories, principles, reasons, relationships and continuity of the subject in detail. It may be cut or added a subject according to the reasons or the appropriateness. To ensure the integrity, it should be repeated approximately 2-3 times.

Dimension of learning

Practice in analytical thinking skills will support the learning process of students which will be based on the concept of dimensions of learning: 1) providing students with a good attitude and acceptance of the practice to improve analytical thinking skills 2) practice in analytical thinking skills to help the students learned and getting them to analyze and integrate different knowledge to the same content 3) practice in analytical thinking skills to develop students to understand the content they learned deeply 4) practice in analytical thinking skills to support and encourage students to apply knowledge meaningfully such as using
knowledge to make decision, solve the problems and analyze systems 5) practice in analytical thinking skills has to be able to help students with creativity, discipline in yourself and having patience in various skills training. (Robert J. Marzano, & Debra J. Pickering, 1997)

Teaching Thinking Skills
The direct teaching of thinking (Phillips, 1997). Any identified thinking skill or process can be taught directly.
1. Introduce the skill
2. Explain the skill
3. Demonstrate the skill
4. Apply the skill
5. Reflect on the skill

Computer Programming I course contents
Fundamental of programming there are Introduction to computer programming and Java language. Primitive data types and related subjects, such as variables, constants, operators, and expressions. Selection statements. Looping statements. Write simple Java program. Create, compile, and run Java program. To know the basic syntax of a Java program (Daniel Liang, 2007)

Learn to how to write programs using primitive data types, input and output, and simple calculations. Understand about symbols of Flowchart and can write Flow chart. Analysis Flow chart and write program from Flowchart. Use Boolean expressions to control selection statements. Implement selection control using IF and nested IF statements. Implement selection control using SWITCH statements. Implement loop control using FOR statements. Implement loop control using WHILE statements. Implement loop control using DO-WHILE statements (Suwannik, & Thanatipanon, 2005)

RESEARCH OBJECTIVE
The objective of this research aimed to study results of analytical thinking skills training through learning in Computer Programming I course.

EXPECTED OUTCOME
Expected results from this research was the process of analytical thinking skills training would be beneficial to learn in Computer Programming I course.

RESEARCH SCOPE
1. The population was 2,800 undergraduate students of Muban Chom Bueng Rajabhat University in the 2010 academic year.
2. The sample of 44 first year students at a major of computer science from Science and Technology faculty of Muban Chom Bueng Rajabhat University in the first semester of the 2010 academic year was selected by purposive sampling.
RESEARCH TOOLS

Tool used in this research were

1. The process of analytic thinking skills training
2. Student questionnaires.

RESEARCH ASSUMPTION

1. Pre-tests and mid-term tests in Computer programming course is the same tests.
2. Pre-tests and mid-term tests in analytical thinking is the same tests.
3. The result of the tests is the scores during the mid-term examination in the first semester of the 2010 academic year.

RESEARCH LIMITATIONS

The limitation of this study was the problems to practice analytical thinking skills being about computer programming.

RESEARCH METHODOLOGY

1. Analysis phase.

Then here is the analysis process:
1.1 Study on Analytic thinking.
1.2 Study on IMMCIP process of KMUTT.
1.3 Study on Dimensions of learning.
1.4 Study on Teaching Thinking Skills.
1.5 Study contents on Computer Programming-I course.
1.6 Interviews computer instructors of 4 Rajabhat university about concept to train analytic thinking for learning for write programming such as Muban Chom Bung Rajabhat University, Phetchaburi Rajabhat University, Nakhon Pathom Rajabhat University and Kanchanaburi Rajabhat University.

2. Design phase.

2.1 Synthesize theories and concepts of analytical thinking skills.
2.2 Make up the model of analytical thinking skills training.
2.3 Four experts from Muban Chom Bueng Rajabhat University, Petchaburi Rajabhat University and Nakhon Pathom Rajabhat University check the possibility, the appropriate and receiving the suggestion of the model of analytical thinking skills training. Then the researcher collect it.
2.4 The results was a process of analytical thinking skills training for students learning in Computer programming course. It was as the following:

1) Identifying problems.
2) Brain storm chart creation.
3) Concept chart creation.
4) Flowchart chart creation.
5) Assessment.
Effects of brain storm chart creation, concept chart creation and flow chart creation was shown below

![Brainstorm Chart](image1)

![Concept Chart](image2)

![Flow Chart](image3)

2.5 Make up 4 items of analytical thinking tests. Each item has 10 points, so the totals are 40.
2.6 Make up 4 items of Computer programming tests. Each item has 10 points, so the totals are 40.

DATA COLLECTION

The process of analytical thinking skills training was used to practice towards the 44 first year students at a major of Computer Science from Science and Technology faculty of Muban Chom Bueng Rajabhat University in the first semester of the 2010 academic year before they study Computer programming course each time for 5 weeks.

RESEARCH RESULT

1. The relationship between analytical thinking skills and academic performance of student  
   Correlation coefficient of the relationships between analytical thinking skills and academic performance of student was 0.78 indicating that the relationship was statistically significant at 0.01

2. Results of analytical thinking skills and academic performance of student.

   2.1 Based on the comparison of the total scores of analytical thinking skills improvement show that the mean of pre-test was 1.02 and posttest was 31.82. When testing the differences of significance between the pre-test and posttest scores of the process of analytical thinking skills training by finding the statistical t-test (Paired Sample t-test) showed that the process of analytical thinking skills provide students with effective analytical thinking increased. The differences were statistically significant at 0.05 as shown in table 1

Table 1: Comparison of the mean scores on the Analytic thinking skill of the experimental group before and after the treatment

<table>
<thead>
<tr>
<th>Analytic thinking skill scores</th>
<th>$\bar{x}$</th>
<th>S.D.</th>
<th>T</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>1.02</td>
<td>1.44</td>
<td>-45.384</td>
<td>.000**</td>
</tr>
<tr>
<td>Post-test</td>
<td>31.82</td>
<td>5.65</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.2 Based on the comparisons of average total of system analysis appears that the mean of pre test was 5.23 and the mean of post test was 38.82. When testing, the differences of significance between the pre test and post test scores of the Computer programming by finding the statistical t – test (Paired Sample t – test) indicated that the process of analytical thinking skills combined with teaching process provide student with effective academic performance increased. The differences were statistically significant at 0.05 as shown in table 2
Table 2: Comparison of the mean scores on the Computer programming of the experimental group before and after the treatment

<table>
<thead>
<tr>
<th>Computer programming scores</th>
<th>$\overline{x}$</th>
<th>S.D.</th>
<th>T</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>5.23</td>
<td>3.26</td>
<td>-44.235</td>
<td>.000**</td>
</tr>
<tr>
<td>Post-test</td>
<td>34.82</td>
<td>3.83</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. The results of the students’ interview through the attitude of them with the process of analytical thinking skill were concluded as the following:

1. Students of the opinion that the process helps students brainstorm ideas or to get more information. The subject see a variety of views. The thinking up a variety of topics. The idea is more detailed. Help to think more carefully.

2. Students of the opinion that the process of concept process help students think in terms of classification easily. Help arrange issues more easily. Easy to looking for issues that not complete. Can increase or decrease subject to subject. Can set a new subject group.

3. The opinion of students are that the Flow chart process to see the stage clearly. Easy to arrange and easy to modify step. Easily visible defects. Visualize the total. Have direction to write computer program. Make programming easier and reduce errors in programming. Makes programming faster.

SUMMARY

1. The results showed that the training process of analytical thinking skills provide students with effective analytical thinking increased significantly statistically at the 0.05 level.

2. The results showed that training process analytical thinking skills and integrated process of teaching allows students effective learning higher statistical significance at the 0.05 level.

3. Students have a good attitude towards the process of analytic thinking skills training.

DISCUSSIONS

1. Should develop training process of analytical thinking and test on the basic content to be able to develop all students to have analytical thinking skills.

2. Should take the process of analytical thinking skills in learning computer programming languages. To develop as a set of an E-Learning to be used for all students.

3. Should develop the training process of analytical thinking skills in learning computer programming languages cover the contents in this course and training continued throughout the semester.
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Teacher Development in Aspect of the Student Care and Support System at Banmaung School, Khon Kaen Province

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ABSTRACT

This research implemented methodology of action research to its procedure based on the purpose of teacher developing in aspect of the student care and support system at Banmaung School in Khon Kaen Province. The process consisted 4 steps included planning, action, observation and reflecting. Target group for this research was 30 administrators and teachers from Banmaung School in Khon Kaen Province. Structured interview form, note form for activities, cooperative observation form and questionnaire were used as research instruments for collecting data. Data was analyzed through significant findings distribution before checking by triangulation technique. Method of collecting data consisted of interview, observation and questionnaire. The findings were presented in the format of descriptive analysis. Data which collected from questionnaire technique was consequently analyzed for figuring out percentage and standard deviation. Research Findings found as follows:

For the first circle of action, teachers from Banmuang School could be found with more knowledge and understanding in student support system as well as their better performance for it. However, the problem of implementation to practice still was found so they joined solving it by developing through the second circle. As a result, teacher got more knowledge, understanding and could well perform the student support system throughout its procedure. They could prevent and solve problems of all students throughout school. Moreover, they understood the role of monitoring and helping students which could affect to the enhancing of good quality for students in term of physical, mental, wisdom, abilities, moral, ethic and desired characteristics.

Keywords: Teacher Development, Student Care, Support System
The Study on Consequences of Educational Supervision for English Development level 2

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ABSTRACT

The purpose of this study was to evaluate the effectiveness of an educational supervision for teaching and learning English development by teachers who taught this subject to educational level 2 students. The supervision technique was Long-term Training Program, which observed four main aspects including participants’ reactions, learning, behavior, and analysis of students’ progress.

The study group consists of 50 teachers of English whose English proficiency were at basic level at the time, and 390 students of those teachers’ classes who got effects from the training.

Tools used to collect the data for this study consisted of a survey for participants’ opinions, a survey for satisfactory toward the training, pre and post tests, questionnaires of knowledge used and applied, evaluation form of classroom management, a test to evaluate the use of English language by students, and attitude survey for students toward learning English. The statistics used to analyze the data were average, percentage, standard deviation, and t-test.

The study results
1. The result of reaction evaluation found that participants agreed on the suitability of training was high in overall.
2. The result of the participants’ learning shown that 88% of them have testing score over 60%. According to the pre-posttest score, before and after training participation found that the posttest score was higher than the pretest at significant rate of .05.
3. The applied knowledge by the participants indicated a high level in general.
4. The effectiveness of the students’ ability to use English for communication was moderate in general. The attitude towards learning English was shown as high.

Introduction

The educational supervisor who observed the teaching and learning of the English language in Nongkhai Educational Service Area Office 2 found the following critical problems:
1. 38.50% of teachers who are currently teaching English did not major in teaching English as the second language.
2. 58.45% of them never attend any English teaching and training workshops prior to the assignments.
3. 62.25% teachers have participated in seminars and training but did not apply what they learned in their instructions.
Consequently, teaching and learning English did not achieve its goals as stated in the curriculum.
Training is an effective systematic process of behavior change. It helps to develop and increase knowledge, abilities, skills, and attitude. Therefore, there is a need for an advisory training or workshop for English teaching and learning development. The form of training called Long-Term Training Program was employed in this advisory training to ease the problems stated above.

The objectives of the study are:

1. To study the reaction of the participants.
2. To study the summative output of the participants' learning.
3. To study the use and adaptation of the knowledge after the training.
4. To study the results of the participants' learning experience.

The scope of the study is as follows:

The population of the study

The data of this study was derived from two groups of populations. The first were teachers who have participated in the training, and the second were students who were impacted by the training.

Participants of the training

This sample group of this study was 50 teachers who were at basic level and they were randomly selected by purposive sampling.

Students who were impacted by the training

This sample group was students of the second level from the participants' classes from 50 schools with a total of 390 students.

1. The framework of contents for supervision in English teaching and learning development for second level students

The training was focused on the English proficiency for teachers including:

1.1 The ability of using English and the language consisting of:
   1) Classroom English expression,
   2) Phonology and using dictionary,
   3) Morphology,
   4) Syntax, and
   5) Culture.

1.2 Ability of English classroom management consisted of:
   1) Perspective in English teaching development
   2) Lesson planning
   3) Authentic assessment

1.3 The theories and trend of English teaching development for teachers who teach English at the second level.

The researchers used the process of training for teacher development, which is called Long-Term training Program. The training was divided into three stages.
4. Methods
Supervision Process

<table>
<thead>
<tr>
<th>Study what it is, problems and needs.</th>
<th>Setting up training objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>Setting up curriculum for the training</td>
</tr>
<tr>
<td>Making materials/tools</td>
<td>Documenting/materials for the training</td>
</tr>
<tr>
<td>Supervision</td>
<td>Long-term training program</td>
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<td></td>
<td>Stage 1: intensive training</td>
</tr>
<tr>
<td></td>
<td>Stage 2: teaching training in real classrooms</td>
</tr>
<tr>
<td></td>
<td>Stage 3: Seminar after the training</td>
</tr>
</tbody>
</table>

Evaluation follows The Kirkpatrick Approach

- **Reaction Evaluation**
  - Teachers/Participants
    - 1. English proficiency
    - 2. English classroom management skills
    - 3. Training satisfaction

- **Learning Evaluation**
  - Students
    - 1. Improvement in English for communication
    - 2. Positive attitude toward learning English

- **Behavior Evaluation**
- **Result Evaluation**
Conclusion

Methods of supervision
The process of supervision for English teaching development for teachers who teach English at the second level by using Long-Term Program was divided into three stages.

The first stage: Five days intensive training program based on English teaching development for the second level teaching English by the leading trainers within the educational area.

The second stage: Teaching training in real classrooms after the intensive training. The participants carried out their assignments and lesson planning in their classrooms.

The final stage: A one day seminar after teaching in real classrooms.

Tools used for the study

1. Documents for supervision
2. Documents to follow supervision consisted of two types:
   1) for teachers
   2) for their students

The results from the supervision
The analysis from English teaching development supervision are shown in categories listed below:

1. Reactions from the participants

   1) Attitude towards the five days intensive training
   Participants agreed that the training in general was very appropriate. The content suitability for the training was rated as very suitable.
   For the contents in each aspects were rated in descending order as shown below:
   - The contents in the handbook are suitable
   - It helped me to understand the function of the language used in the classroom better
   - It helps to increase the teaching techniques and skills.
   - The length of the training was suitable
   - I understand the gist and main idea of the training clearly
   - I understand the phonetic and the use of dictionary
   - I understand the structures of English better
   - The training is useful for my work
   In the aspects of management were rate in descending order as shown below:
   - The announcement and publicize of the training are covered and reached the participant on time.
   - Asking for more information about the training was convenient.
   - Materials and equipments used in the training were appropriate.
In general, the training was very useful
The environment and the place of the training were appropriate
The trainers gave clear instructions and able to answer questions clearly.
The length of the training was appropriate.

Additional suggestions made by the participants are summarized as follows:
1. The strength of the training were the variety of activities, the readiness of documents, the knowledgeable and capable trainers, good techniques, good materials, sufficient materials and budget, and that the training was suitable for the second level English teaching.
2. The weakness of the training was participants grouping; they were not grouped by the English proficiency, level of teaching, and prior knowledge.

2) Satisfaction
Generally, the participants indicated a high level of satisfaction. Satisfaction in each aspects were rate in descending order as shown below:
• The contents of the supervision
• The supervisor was friendly
• The involving in the supervision
• The materials and documentation for the supervision
• The activities for the teaching and learning development
• The activities for language improvement
• The length of the supervision evaluation
• Tools for supervision evaluation
• Process of the supervision
• Self productivity and outcome result of the supervision

2. The results of participants' learning assessment

1) Ability of using English and the language
After the training, 88% of the participants' score was higher than 60%, this number of teachers was higher than expecting which only 75%. The average score of the post-test was higher than pre-test significantly at 0.05. The posttest score was increased by 24.20%, which higher than the expected percentage which was only 15%.

2) Ability of classroom management
A good level of the curriculum analysis, classroom management including lesson planning, and learning assessment and evaluation were shown.
Curriculum analysis ability in each aspects were good in average, they were listed in descending order below:
• Core curriculum and objectives setting
• Core curriculum analyze due to the need of the learners, community, and society.
Classroom management and lesson planning abilities were rated as a good level in average. They were listed in descending order as shown below:
• Teachers were able to design integrate learning units
• Used the variety of materials appropriately based on the learners’ level.
• Teachers were able to integrate their learning units with other subjects.

For the aspects of evaluation, they were rated as good in average, here are they in descending order:
• Teachers were able to create or choose the right and consistent tools due to the learning objectives set
• Teachers were able to set rubric and criteria for evaluation consistently due to the objectives
• Set the learning objectives coherently with the learning methods, process, and plans
• Then, teachers were able to use the results from evaluation to improve their teaching

3. Ability of applying the knowledge learned
The participants showed high abilities of applying the knowledge they have learned from the training in their classes. The aspects were shown in descending order below:
• Grammar
• Culture
• Authentic evaluation, and phonetic
• Word, and morpheme
• English for communication
• The use of dictionary and learning units design
• Theories in English teaching and learning development

4. The results from the students' end

1) The assessment of English for communication indicated that the students were able to use English for communication moderately. Their English abilities were listed in descending order as shown below:
   • Students were able to introduce themselves
   • Students were able to great and apology
   • Students were able to say thank you
   • Students were able to ask for permissions
   • Students were able to request and follow the requests
   • Students were able to say good bye, and politely interrupt
   • Students were able to communicate by writing

2) The students' attitude towards learning English generally was shown a high level. All aspects were shown in descending order below:
   • Students thought that being speaking English fluently is admirable.
   • Students thought that Learning English is not difficult, and eager to practice English outside the classrooms
   • Students thought that they had fun learning English and doing activities in their classrooms
• Students thought that careers that using English are fun, interesting, and challenging. Moreover, learning English helped them to understand other subjects
• Students thought that English subject will eliminate their fear of speaking English with foreigners, therefore they will focus on learning English
• Students felt uncomfortable of speaking English
• Students do not like to speak English outside the class

4. The suggestions for the next study

4.1 There should be a curriculum for the English teaching development trainers training which includes a variety of activities and the ability of using and transferring the language.

4.2 There should be a research to compare between self learning without the trainers, and the training with trainers. It is recommended to gather more information to identify which one will be more effective than the other.
A Home and School-Based Intervention Model for Thai Children with Attention-Deficit Hyperactivity Disorder

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Siriboon Saigosoom 2
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Somporn Warnset 4
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ABSTRACT

The objectives of this experimental research investigation were as follows: (1) to develop a home and school-based intervention model for supporting children with attention-deficit hyperactivity disorder (ADHD) and (2) to determine how effective the model is by comparing the behaviors of children with ADHD between those selected for an experimental group and those selected for a comparative or control group. The two groups of children were given pretests and posttests in the areas of work success, self-control, and social skills. Subjects were 16 ADHD Grade 4 students, Khon Kaen University Demonstration School (Faculty of Education) during the 2008 academic year. The students were divided equally into two groups of eight each.

The researcher utilized two types of research instruments: (1) One type of research instrument involved mechanisms for collecting data which in turn allowed for the measurement of four aspects of behavior. These measuring instruments consisted of the Work Success Assessment Scale, the Self-Control Behavioral Assessment Scale, the Social Skill Assessment Scale, and the Self-Control Behavioral Observation and Record Form. In addition, (2) the researcher utilized another type of research instrument consisting of three program sets. These three program sets were the Parents’ Workshop Training Program, the Teachers’ Workshop Training Program, and the Group Counseling Program for Attention-Deficit Hyperactivity Disorder Children.

In carrying out this research investigation, the researcher utilized a bipartite research methodology: In Part 1, the researcher developed a model applicable to ADHD. In Part 2, the researcher evaluated the effectiveness of this model by comparing the mean rank between the results of the pretest and the results of the posttest. The data were analyzed through applications of basic statistics and comparisons of group differences utilizing the Mann-Whitney U Test, and intra-group differences utilizing the Wilcoxon signed-rank test.

The research findings are as follows:

1. The home and school-based intervention model for Thai children with ADHD required collaboration between parents and the school. The students’ parents played their role in child rearing practices. The school played its role in the two aspects of group counseling and learning support.

2. The experimental group children with ADHD evinced a post-experimental mean rank for behaviors regarding work success and self-control higher than the mean rank of those in the control group at the statistically significant level of .05. However, no statistically significant differences were found in regard to social skills.

In respect to intra-experimental groups comparisons, the researcher determined that the experimental group children with ADHD exhibited a higher post-experimental mean rank for work success and self-control behaviors than prior to the experiment at the statistically significant level of .05. However, no statistically significant differences were found in regard to social skill behaviors.
The Development of Learning Organization in the Basic Education School by Action Research : A Case Study

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ABSTRACT

The objectives of this research were 1) to study the guidelines of the development of learning organization of basic education schools that have the best practices, 2) to apply this knowledge to develop the learning organization in an average school. Action research was used and the research process was divided into 2 phases. Phase 1 was the study of objective 1. The target groups of this research were 59 schools around Maha Sarakham Province in N.E. Thailand. Phase 2 was the study of objective 2, the sample was Muangwapiathum school in Maha Sarakham Province. In Phase 1 it was found that there were 48 guidelines of the development of learning organization. There were as follow: Factor 1 Teacher and personnel development in school(5 guidelines), Factor 2 Transformational leadership (5 guidelines), Factor 3 Sustain the creating of culture and learning climate (5 guidelines), Factor 4 Specify vision, mission and strategy of schools (7 guidelines), Factor 5 School structure (3 guidelines), Factor 6 Motivation in working (7 guidelines), Factor 7 School effectiveness (6 guidelines), Factor 8 Knowledge management and information of schools (3 guidelines), Factor 9 Innovation development and using technology (4 guidelines) and Factor 10 Team learning (3 guidelines). In Phase 2 it was found that all of the participants participated in focus group discussion to establish development approaches and activities. There were 6 factors and 14 activities. These 14 established development activities were merged into 7 projects.

Keywords: The development of Learning Organization, Action Research

Introduction

The current rapidly-changing and highly competitive world has caused changes to society which have led to transformations in various organizations including educational organizations (Ministry of Education. 2007: 2-8). One common objective for all administrators of these educational organizations is the expectation to develop their organization to the point that they can exist and keep up with the fast-paced world, and can effectively manage all the tasks required of them to successfully achieve the organization’s goal. Therefore, for the current world and for the future world, in order for all organizations (whether they be administrative organizations, business organizations or educational organizations) to succeed, becoming a learning organization is an important contributing factor. This is mainly because in the era of globalization and a borderless world, information changes and becomes quickly outdated. Constant reeducation is required. At the school level, the requirement for creating a learning school is unavoidable (Theera Rooncharoen. 2007:207) because schools are a service organization which are obliged to teach. Therefore, schools should be the organizations that embrace the idea of leaning organizations more than any other kind of organization (Hoy &
Miskel. 2008: 33). Schools will also encounter changes in society and in their own organizations. Therefore, there is a necessity for them to become a learning organization (Devos, Broek & Vanderheyden. 1998: 701). The current trend requires schools to become learning organizations that provide social networks, organizational structures, and education. (Bush, Tony & others.1999: 181). According to the concept of learning organizations, not only do the expectations for schools include teaching students task-based activities and increasing the school’s efficacy, but also to be a learning center in people’s lives, as well as be part of a learning community and a learning society (Middlewood David & Lumby Jacky. 1998: 31). This is in agreement with Keatings’ idea (Keatings. 1998:706-707) which states that, if the goals of education are to create lifelong learning skills and a society based on learning, then schools are required to be the learning organizations that provide continuous educational development for students as well as instill in them a sense of social responsibility. Since schools are organizations with a structure that creates learning at all levels, i.e., individual learning, team learning and organizational learning, alterations to the structure and the working strategy of a school in order to convert it into a learning organization must be carried out in a clear and concrete way. Emphasis must be placed on four areas of the organization: its vision, culture, working strategy and organizational structure. In these four areas, their objectives and work assignments must be changed from being strictly performance- and output-oriented to become more learning- and development-oriented (Marquardt, Michel J.2002.; translated and edited by Bodin Wijarn and Weerawut Maksiranon. 2006: 133). In addition, Senge (Senge. 1990: 139-269) says that to develop a learning organization, leaders and members of the organization must be developed in a tangible way. He suggests basing this development on the Five Disciplines, which is comprised of personal mastery, mental modeling, shared vision, team learning and systems thinking. Hoy & Miskel (Hoy & Miskel. 2008: 34) mention that transformational leadership, continuous and open communication, and participation in decision making are a mechanism that promotes learning in schools. The challenge is creating schools that can respond efficiently not only to current problems, but also to future problems concerning the school's effectiveness, too. This statement is in accordance with Razik & Swanson's concept (Razik & Swanson. 2001: 20) who say that in order for a school to have desirable characteristics, its administrator must view the school as an organizational system, in which each component fluidly interacts with every other component. These components determine the organization’s size, decision making and hierarchy, and any changes within the organization will affect its efficiency, communications and the relationships of its members. In addition, stressing learning as the main priority is a strategic rule for the leaders of all organizations (Argyris. 1991; Garratt. 1994 and Senge. 1990. cited in Middlewood David & Lumby Jacky. 1998: 33)

Therefore, the concept of schools as a learning organization is an idea that people should understand and give precedence to. There should be research regarding the approaches, methods and systems that are most appropriate for the conversion of a school into a learning organization. When a school has become an effective learning organization, it must adopt approaches to create a supporting structure for continuous teaching and learning. In addition, the school must promote the adaptation of the organization, the development of its corporate culture, the fostering of a cooperative atmosphere that allows for individual adaptation. Additionally, transitional leadership, open and continuous communication and team decision making are all important tools to support the transformation of a school into a learning organization. The challenge is the
creation of schools that can respond efficiently not only to current problems, but also to new problems concerning school effectiveness, too (Hoy & Miskel. 2008: 34). In order for learning schools to develop continuously, the involvement of the schools’ personnel is required, especially the administrators of the schools and their leadership (Theera Rooncharoen. 2007: 207). This view is in agreement with the Wiroj Sarratana's concept (2005: 11-12) that a learning organization is what a modern administrator must create. Administrators must demonstrate leadership in providing or searching for new opportunities for continued learning. This is encouraged by the belief that people’s capabilities expand as they learn more, and so organizations that provide education should grow and develop indefinitely. Also, Witoon Simachokdee (2002: 8) notes that organizations that possess the potential to compete and survives with some sustainability usually have the characteristics of a learning organization. Therefore, this whole idea is not implausible.

However, a literature review on the provisions of basic education reveals that there are problems with this idea. For example, the Office of the Educational Council’s report (2548 : 15-59) on the progress of educational reform after a six-year term of the National Education Act of B.E. 2542 revealed problems and obstacles in the following areas: 1) the reform of curriculum, teaching procedures and evaluations; 2) the reform of teachers and educational personnel; 3) educational standards and educational quality assurance; 4) educational media and technology; 5) the reform of the educational system; 6) the reform of administrative systems and education provisions. It was also found that the attempts to reform education by numerous parties over nine years have been a total failure. Reforms failed to develop the quality of students as was expected. The only tangible changes were some alterations to the organization’s administrative structure and the adjustment of higher administrative positions within the Ministry of Education.

The reasons behind the unsuccessful educational reform in Thailand were the lack of continuity and clarity of policies, and that the reform plans were not put into practice. More importantly, the attempts to improve teacher quality failed. The failures of the past have resulted in many parties stepping forward to demand the Ministry of Education to push for a second educational reform as fast as possible. This second reform was supposed to learn from the mistakes of the first reform (Suwapong Janphangpetch. 2008: 22).

In addition, the second external evaluation of the quality of basic education at the half-cycle stage (2549-2551 B.E.) by the Office of National Education Standard and Quality Assessment (a public organization) on 22,456 schools (Somwang Pithianuwat.2009: 23) revealed a moderate mean score (mean = 3.18, S.D. = 0.75). The evaluation results also showed that 79.68% of the schools were accredited, while 20.32% were not. According to the results, the schools were divided into four categories as follows. First, excellent quality schools, with mean scores of 3.51-4.00. There were 4,306 schools in this category which accounted for 19.18% of the total evaluation. Second, good quality schools, with mean scores of 3.25-3.50. There were 5,298 schools in this category which accounted for 23.59%. Third, moderate quality schools, with mean scores of 2.75-3.25. There were 8,288 schools in this category which accounted for 36.91%. And finally, fourth, substandard schools, with mean scores lower than 2.75 and/or a “good” rating less than 11 items out of 14 evaluated items and/or a “substandard” rating for at least one item. There were 4,564 schools in this category which accounted for 20.32% of the total evaluation. The second external evaluation of the quality of basic education by the Office of National Education Standard and Quality Assessment was done on 154 schools, which
were in Maha Sarakham Educational Areas One, Two and Three by the Office of Basic Education. The evaluation results showed that, in Maha Sarakham Educational Area One (including an area that was, at the time, Area Three), there were 115 schools that were accredited out of 154 schools, and 39 schools that were not accredited (The Office of Maha Sarakham Educational Area 1. 2008:1). In Maha Sarakham Educational Area Three, there were 256 schools that were accredited out of 291 schools, and 35 schools that were not accredited (The Office of Maha Sarakham Educational Area 2. 2008: 1-9).

Additionally, the literature review on documents obtained from the Offices of Maha Sarakham Educational Areas One, Two and Three showed problems in educational management in the following areas. 1) First, in compliance with school charters, there were problems concerning the committee members that were representatives from the public lacking time to study the charters. Second, insufficient budgetary funds undercut performance planning goals. Additionally, there were concerns about inefficient staff, ineffective evaluations, overdue performance reports, a lack of information for work development and un systematic data storage (Songchai Sarachai.252001: Abstract). 2) Regarding the operations concerning health promotion, the severity of the problems is at a moderate level in seven areas: projects involving the cooperation of schools and communities, nutrition and food hygiene, counseling and social support, hygiene education in schools, school administration, school sanitation service and sports and recreation. Severe problems were found in budgetary solvency, insufficient or inappropriate equipment, media and facilities, and the lack of personnel (Wilaiwan Tiabdogmai. 2002: Abstract). 3) Regarding the application of local wisdom in curriculum development for Grades One through Nine, problems that were at a moderate level were found to concern the teachers of local wisdom. For instance, not enough teachers were actually living in the community in which they taught. Or conversely, people who possess local wisdom often lacked the ability to teach the material or were not cooperative with schools or not able to participate in schools’ activities during office hours. Other moderate problems include schools and personnel, such as a lack planning skills, inappropriate time allotted by the schools, a lack of a supporting budget, schools failing to assess their current situation, and no lesson plans for local wisdom teaching (Prayoon Nangsrikoon. 2004: 98-99). 4) The top three problems concerning education management following the Education Act B.E. 2545 of basic education schools were the lack of personnel, the lack of modern equipment for students’ data storage and insufficient equipment and facilities (Khamsing Sombatchaisaeng.2005: Abstract). 5) In the area of teachers’ work spirit, it was found to be at a moderate level, and could be ranked from the highest to the lowest as follows: the satisfaction with work, benefits and rewards, state of work, job security, feelings of being part of the organization, relationships among people in the organization, promotion opportunities, trust and faith in administrators, and being respected by others (Nantawan Laoluecha. 2006: Abstract). 6) Regarding the roles of a basic education committee in academic administration in schools, it was found that the problems were at a moderate level when considered overall or when broken down. It was also found that small schools had more roles to play than big schools (Saiyood Sankoi. 2006: Abstract). 7) Regarding the participation in education management of sub district administrative organizations, participation was found to be at a moderate level in all areas, and could be ranked as followed: budget management, academic management and human resource management (Sомнuek Simapon. 2006: Abstract). 8) Regarding the requirements of teacher to develop the efficiency in conducting in-class research, there were problems at a moderate level. These problems included insufficient understanding
about in-class research in terms of problem analysis, research problem determination, selection of statistical analysis methods, and research planning. Other impediments included teachers having other work to do, or having health problems and economic problems. Also, the fact that teachers have to spend their own money to fund the research resulted in a lack of motivation. Another problem was the lack of resources, such as books, literature, academic papers and research papers, found in schools (Puangpayom Boontasaeng. 2007: Abstract). 9) Regarding problems concerning school administration, it was found to be at a moderate level, and could be ranked as follows: budget management, academic administration and general administration. When analyzed by positions, it was found that school directors encountered moderate problems, while teachers encountered severe problems. When analyzed based on school size, it was found that small and medium schools encountered problems at a high level, while big schools encountered problems at a moderate level. When analyzed based on class levels, it was found that schools that teach from Grades One to Six encountered problems at a high level, while schools that teach Grades One to Nine or Grades Seven to Twelve encountered problems at a moderate level (Suthiluk Srisith. 2007: Abstract). 10) Problems concerning information systems were at a moderate level and were in the areas of data collection, data checking, data processing, data presentation and data storage (Sompong Amart. 2007: Abstract). 11) Problems with the student-centered learning activities provision were ranked as follows: insufficient budget, substandard student academic achievement and discontinuous teacher development which resulted in the lack of skills to effectively design learning activities (Poramate Sriraksa. 2008: Abstract). 12) Regarding the level of school administration, it was found to have problems at a moderate level, and these problems were ranked as follows: budget management, human resource management, general management and academic administration. It was suggested that the office responsible for the educational area should provide training workshops and academic development programs for school administrators and directors in order to increase their skills and understanding which would help them with their work. The office should also promote institutional research, research for learning development, and the application of research results in developing schools. In addition, there should be inspections, follow-ups and evaluations of academic administration by school directors in order to provide them with advice and development guidelines (Suparat Ganha. 2008: Abstract) Lastly, 13) Regarding school directors’ roles in promoting in-class research, it was found that both the actual roles and the expected roles of directors were at a moderate level. Suggestions were made and ranked as follows. Firstly, there should be support in terms of budget, documents, textbooks, and materials for conducting research. Secondly, certificates and rewards should be presented to teachers who do research in class in order to promote research and improve teaching. Lastly, teachers should be provided with freedom to do research in class, so that teachers can use their research and work to apply for higher academic positions (Somsak Luengthong. 2008: Abstract).

According to the academic concepts about schools as learning organizations that have been reviewed together with problems and obstacles to the management of basic education, it can be seen that the development of schools into learning organizations is an interesting field of educational management which has research potential. Also, it is a field that can solve various educational problems. Therefore, the author is interested in the study of the development of a school into a learning organization. The study was conducted employing action research in primary schools and applying learning organization concepts as a framework, and then employed the development guidelines
with Muang Wapipathum School in order to transform the school into a learning organization. This study would help create suitable guidelines for the development of a school into a learning organization and a good quality school, as well as help school directors and relevant people to see the importance of becoming a learning organization.

The Objectives

1. To study guidelines for the development of schools with best practices in Maha Sarakham Educational Area One, Two and Three and outside these Educational Areas into learning organizations.

2. To develop a school into a learning organization.

Research Framework

Duration

There were two phases of the study; viz Phase One, a study of guidelines for developing schools into learning organizations and Phase Two, the development of a school into a learning organization employing action research. Together these phases lasted 11 months.

Variables

There were two types of variables being studied in this research.

2.1 10 variables that were important for a school to become a learning organization.

2.2 22 variables were characteristics of a learning organization, six of which were at an individual level, seven of which were at a group level and nine of which were at an organizational level.

Research Methodology

Population and Sample

1. Population. The population of this research was primary schools providing education at preschool and primary school levels belonging to the Office of Basic Education, 576 of which were in Maha Sarakham Educational Areas 1, 2 and 3, and 2 of which were outside the educational areas.

2. Sample. The sample employed in this research was primary schools providing education at preschool and primary school levels belonging to the Office of Basic Education, 52 of which were in Maha Sarakham Educational Areas 1, 2 and 3, and 2 of which were outside the educational areas.

2.1 This sample of 54 schools were schools with best practices, recruited by means of purposive sampling.

2.2 An in-depth study was conducted on 3 schools within Maha Sarakham Educational Areas 1, 2 and 3, and on 2 schools outside the educational areas, which were selected by purposive sampling.

2.3 The school selected for the Phase 2 study was Muang Wapipathum Schoool in Maha Sarakham Educational Area 2.
Research Instrument

Research instruments employed in this study were a questionnaire, an interview and a learning organization evaluation form, all of which were developed by the author employing the following steps.

1 Studying theories, principles and methods for developing research instruments from relevant documents and textbooks.
2 Studying examples of research instruments related to development towards a learning organization.
3 Developing research instruments based on a basic conceptual framework created by the author, as well as employing factors contributing to the development into a learning organization and an outcome index for a learning organization as guidelines for the creation of a questionnaire together with criteria for a learning organization’s characteristics for each questionnaire item.
4 Creating a draft of a research instrument for co-researchers to check prior to submitting for research advisors’ and experts’ approval.
5 Presenting the draft to research advisors and experts to check the correlation of each questionnaire item and a learning organization's characteristics.
6 Improving and adjusting the research instrument following comments from the research advisors and experts.
7 Printing out the research instruments for further testing for validity and reliability, i.e., piloting prior to the actual use in the study.

Data Collection

In order to collect data, the author, the co-researchers, teachers and staff from the participating schools had formed a team to conduct the research in terms of inspection, follow-ups and evaluation, and data collection in each research phase. The research was divided into two phases, i.e. during conducting activities according to the action plan, and after the activities finished. The appropriate research instruments were employed following what was stated for each project/activity. When detailed or in-depth information was required, the researchers would conduct an in-depth interview with key informants.

Data Analysis

1. Data analysis methods
   1.1 Qualitative data obtained from observation, interviews and conversation records were subjected to interpretation and summarization employing logical induction based on the format, meanings, correlations and impacts of the perceived data; and data analysis was conducted employing the author’s experience.
   1.2 Quantitative data obtained from questionnaires and evaluation forms were subjected to analysis by descriptive statistics employing frequency, percentage, mean and standard deviation based on the variables of the informants and study variables.

2. Data analysis consisted of three steps as follows.
   2.1 Preliminary analysis. This analysis was conducted immediately after each field research study and data collected was screened in order to search for mistakes
in the experiment, to check for completeness of collected data, and to prevent forgetting important issues pertaining to each data collection step.

2.2 In-depth analysis. After each step of the research, the author conducted an in-depth analysis of all data in order to obtain information for the purpose of composing a research report and for further use in developing the organization.

2.3 Conclusive analysis. After all the steps of the research were completed, the author conducted an overall data analysis in order to evaluate the development of the experiment, to summarize and discuss the results holistically.

Results

In Phase 1 of the study, there were 48 guidelines based on contributing factors for the development of schools towards a learning organization, detailed as follows.

1. Factors concerning the development of teachers and school staff. There are five factors in this area.

   1.1 Schools have well-established goals, policies, plans and measures for teacher and staff development.

   1.2 Schools promote the development of teachers’ and staff’s skills and knowledge about learning activity design and other activities.

   1.3 Schools provide support for teachers and academic staff to further their education.

   1.4 Schools establish a teacher network in order for them to exchange and share knowledge and experience.

   1.5 Schools provide their personnel with educational trips to study work from other organizations in order to acquire knowledge to apply in their own work.

2. Factors concerning transformational leadership. There are five factors in this area.

   2.1 School administrators exercise transformational leadership in school management.

   2.2 School administrators promote decentralization, job classification, job description, and job assignment. Motivation and participation should be employed in school administration.

   2.3 School administrators assign teachers and school staff the work and tasks of school administration.

   2.4 School administrations urge the staff to use leadership and follower-ship skills when working.

   2.5 Schools provide training workshops for teachers and staff, as well as educational visits both in the country and overseas in order to prepare for changes.

3. Factors concerning continuous creation of a corporate culture and learning atmosphere. There are five factors in this area.

   3.1 School administrators urge teachers and staff to research from various resources both in and outside schools.

   3.2 School administrators create an atmosphere of true friendships, confidence, trust and sincerity.

   3.3 Schools provide activities that promote knowledge, together with an understanding about and awareness of the benefits and necessity of the promotion of a learning culture.
3.4 Schools set up meetings as a stage for work presentation, knowledge expansion, direct supervision, and knowledge exchange among subject areas and among levels.

3.5 Schools create a lateral thinking culture.

4. Factors concerning the determination of vision, mission and strategies of schools. There are seven factors in this area.

4.1 Schools allow teachers and staff to express their opinions, share their knowledge and participate in the determination of the school’s vision, mission and strategic plan.

4.2 Schools create internal personal agreements (IPA) in order to promote a personal vision in the staff and to encourage them to excel.

4.3 Schools create a vision for each level based on a school's goals prior to the integration of the level's vision into school's vision.

4.4 Schools have meetings of relevant people to brainstorm, study job descriptions and requirements, to criticize and exchange opinions about schools’ vision, mission and strategic plan.

4.5 Schools promote understanding about schools’ vision, mission and strategic plan in relevant people.

4.6 Schools encourage teachers and staff to make performance reports and evaluation reports on the performance according to each school's vision, mission and strategic plan.

4.7 School administrators have academic leadership, are farsighted and give priority to teachers and staff.

5. Factors concerning school structure. There are three factors in this area.

5.1 Schools classify administrative jobs into four groups, viz academic administration, budget management, human resource management, and general administration; and assign school deputy directors to take charge of each group with teachers and staff to undertake the jobs.

5.2 Schools inquire about the interests of teachers and staff and assign the work to them based on their interests, knowledge and skills.

5.3 Schools appoint heads for each job, level and subject area, as well as responsible staff based on their competency, knowledge and interests.

6. Factors concerning motivation at work. There are seven factors in this area.

6.1 Schools allow teachers and staff to work according to their skills, knowledge and interests.

6.2 Schools allow teachers and staff to participate in school management.

6.3 Schools assign work to teachers and staff with clear instructions, constant supervision, encouragement and advice.

6.4 Schools create motivation and incentives at work.

6.5 Schools instill a sense of responsibility in teachers and staff.

6.6 Schools promote and assist teachers and staff in creating academic work in order to apply for higher academic positions.

6.7 School administrators employ criteria for rewarding or promotion.

7. Factors concerning schools’ effectiveness. There are six factors in this area.

7.1 Schools mobilize resources from relevant parties in order to support the educational management of the school.
7.2 Schools make use of the participation of relevant people in the provision of lessons and teaching activities, and support educational management.
7.3 Schools provide continuous training for teachers in order to improve students’ quality.
7.4 Schools provide activities for continuous academic promotion.
7.5 Schools provide equipment, environments and learning resources for students to study according to the curriculum.
7.6 Schools provide continuous supervision, inspections and evaluations in order to develop an annual plan to increase the efficiency and effectiveness of the schools.
8. Factors concerning the management of knowledge and information in schools. There are three factors in this area.
8.1 Schools provide a computer room together with sufficient information technology service for students, teachers and staff.
8.2 Schools provide learning activities and knowledge for teachers and staff in a variety of ways.
8.3 Schools use information technology in management and teaching activities.
9. Factors concerning the development of innovation and technology. There are four factors in this area.
9.1 Schools train teachers on how to develop teaching materials/innovations for classrooms.
9.2 Schools provide sufficient support in terms of equipment, materials, and facilities.
9.3 Schools provide support to teachers and staff in terms of training on the application of technology at work.
9.4 Schools encourage teachers and staff to conduct in-class research.
10. Factors concerning team learning. There are three factors in this area.
10.1 Schools establish networks for learning and management.
10.2 Schools encourage teachers and staff to share their knowledge.
10.3 Schools have regular monthly meetings for teachers and staff in order to exchange news, information and knowledge.

In the second phase of the study, the researcher and his team partook in a focus group discussion in order to establish activities in accord with the guidelines to develop a school into a learning organization as follows.

1. Employing fair criteria for promotion and rewards.
2. Supporting promotion opportunities for teachers.
3. Appropriately providing welfare and facilities.
4. Providing suitable environments and resources for learning.
5. Mobilizing resources in order to provide sufficient equipment and facilities.
6. Developing school quality.
7. Decentralizing power and assigning work based on the staff’s skills, knowledge and interests.
8. Employing leadership skills at work.
10. Promoting the development of teaching materials and innovations.
11. Promoting the application of technology at work.
12. Promoting learning and information sharing.
13. Developing information technology.
14. Promoting training, and encouraging people who are eager to learn in order to promote adaptation to changes.

With reference to the 14 activities, the researcher and his team agreed to develop these activities into projects based on contributing factors for the transformation into a learning organization and the current requirements of teachers and staff. Therefore, seven projects were devised from the 14 activities based on six factors as follows.

1. A project to promote motivation and inspiration at work.
2. A project to develop learning sources and environments in a school.
3. A project to promote academic excellence.
4. A project to develop transformational leaders.
5. A project to develop teachers’ potential in creating teaching materials and innovation, as well as in the application of technology.
6. A project to develop information technology for learning and work management.
7. A project to create people capable of learning.

Presently, the author is collecting, analyzing and compiling data for a further research report and publication.

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Team Teaching on Science Education Course for Graduated Students

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ABSTRACT

Nine graduated students who attended in science education course have the master degree in pure science and have no any experiences concerned education and doing educational research. From eliciting their prior knowledge the instructors found that most of them lack knowing learning theories, instructional methodologies, and assessment, even they were not be able to explain what science educator really do. This seemed to be big problems for their further study in science education. To provide overview and basic knowledge for this group of students, idea of team teaching was set up for more effective teaching by following step: plan-check-teach-check for every time teaching. Then the course spent most of time in teaching-related activities which aim to prepare the learners to be effective educators or researcher in the constructivist view of teaching and learning. In each week, two instructors prepared the lesson plan and then it was proved through a small meeting process of four teachers. During the class two teachers ran all learning activities while another two teachers observed the class and also shared ideas in the class. After class all instructors had to give feedback on student’s weekly journals together. Learner individual and focus group interviews data revealed that this course has succeeded in providing learner background in sciences education and they enjoyed the learning atmosphere that all four instructors did link content and activities and sheared things in the different point of views that made the lesson more interesting.

Keywords: Team Teaching, Science Education
Learning process for career development belongs to the Dankwian Pottery Community Nakhon Ratchasima, Thailand

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ABSTRACT

Learning process is one of significant factors to save human being alive. It’s as a tool using adjustment with environment for human. As a Dankwian community, where’s start from small pottery village and growth to the culture-trade community, accumulates the fine arts and enhance the perfectly in value-added the pottery product. It’s come from the local wisdom person’s learning which transfers to the community as a pottery career development. From the rationale, the objective of this research is to study the learning process for career development belongs to the Dankwian pottery community, Nakhon Ratchasima, Thailand. The target population is 10 key informants such as local wisdom persons and formal and non-formal leaders in community. The data collecting uses the learning process for pottery development interview form. Data analysis use both frequency and percentage.

The result reveals that formally for career development, Dankwian pottery community uses the informal learning as through a family, look and watching learning, training via the government officials and learning by doing. On the other hands, they learn via the nonformal network inner and outer their community. The recommendation conducts the community should enhancing the systematic learning process via the network to be the cultural career development. The concerning government officials must to support them continually.

Keywords: Pottery career development, learning process, Dankwian pottery community

Introduction

Background of the study

DankWian, The land of ceramics, is located in Tambol DanKwian, Chokchai District and is 15 kilometres south-east of Korat City. Route No.224 Nakhon Ratchasima - Chokchai runs though the village where bothsides of the orad are fulled of beautiful and astonishing ceramic shops. The moon River runs on the east side of the village.

DankWian Litter ally means the by-pass area of bull-carts. As told by the people, years ago, people from various parts on the side of the country, for example, Nang Rong, Buri Ram, Surin, Khunhan, Khukhan and down to khamer regions, who had travelled west-wards in their carts, would normally camp their caravans here at DanKwian. During their stops, the travelers or the merchants would collect the raw clay from the banks of the Moon River for making earthenware-pots, jars, table wares etc. Shapes and designs were copied in traditional way as the ‘Kha’ tribe who originally lived there. Many of those
products were taken back with the merchants and since the products from DanKwian had special characteristics both in shapes and colors and also marvelous quality of tough, they became well known to all people everywhere. Today, the DanKwian products become one of the major export goods from Korat (Webmaster, 1999).

According to the story of Dankwian village, it links to the transfer knowledge from the ancestor or local wisdom person to their family. It’s as also called the community learning process. The social learning process is one of significant factors to save human being alive. It’s as a tool using adjustment with environment for human. Pongpit (cited by Lertvicha, 1989) said that the community learning process has a foundation on the local traditional culture. It cannot separate between the learning and the way of living. The learning and practice is a holistic of learning process which emerges at the local. It helps the people and community survive. The key elements community learning process are local wisdom person, doing by the expertise, and transferring the knowledge and teaching everything concerns the career to the community.

As a Dankwian community, where’s start from small pottery village and growth to the culture-trade community, accumulates the fine arts and enhance the perfectly in value-added the pottery product. It’s come from the local wisdom person’s learning which transfers to the community as a pottery career development.

So, this study will be show the Dankwian learning process which leads to enhance the sustainable career. The goal of the research is to develop the community learning process model for sustainable potter’s career development which help the community to gain knowledge and experiences, and also be able to solve the problems by themselves.

**Objective of the study**

The objective is aimed at studying the learning process for career development belongs to the Dankwian pottery community, Nakhon Ratchasima, Thailand.

**Literature Review**

The meaning of learning

Learning is a process that is important and essential to life, whether living human or animal start learning from birth to death for a man of learning is to help develop different human and animal world.

Others as Trustees article Princess Maha Chakri Sirindhorn Ratchasuda's that "what makes people different from other animals because people shall have the intelligence to think and do something good, useful and valid.". Learning how to help people living happily adapt to different environments and conditions are. The ability of human learning will influence the success and satisfaction in the lives of people.

So, Learning is the process of behavior change as a result of experience and training. This does not include changes in behavior caused by the instinctive response effects of the drug or chemical reaction or reflection of human nature (Ernest R. Hilgard and Gordon H. Brown, 1996).
The purpose of learning

Learning Behavior purposes of educators established by Bloom et al aims to develop students in the following three.

1. The cognitive domain (Cognitive Domain) is the result of learning is to cover the behavior of the brain. Memory understanding used analysis Synthesis and evaluation.

2. The Jet range (Affective Domain) is the result of learning that changes the sense of covering behavior, feelings and attitudes, interests and values evaluation.

3. Range of skills (Psychomotor Domain) is the result of learning the ability to perform comprehensive behavioral category movement actions, performance on the skills and expertise.

Research design

This study uses the descriptive research to explain the community learning process of DanKwian Pottery Village.

The conceptual framework;

- Informal learning
- Nonformal learning network

Learning process for career development belongs to the Dankwian Pottery Community Nakhon Ratchasima, Thailand

Population and Data Collection

The target population is 10 key informants such as local wisdom persons and formal and non-formal leaders in community. The data collecting uses the learning process for pottery development interview form. There were two main parts to the field research: information about the DanKwian Pottery Village, focusing on pottery production and resources and Learning process model.

Besides the interview form, we use the field observation. The purpose of running the field observation was to gain overall information related to the locals’ behaviors in pottery production.

Data analysis

The Information about the DanKwian Pottery Village and the Learning model use both frequency and percentage analysis.
Results

The result reveals as follow;

1) Information about the DanKwian Pottery Village

The Dan Kwian Pottery Village is situated in Nakhon Ratchasima province. It is situated in the lower-northeastern Thailand. The village maintains traditional pottery products, local wisdom and knowledge in the traditional production of pottery and ways of living as in an agricultural society. In certain parts of the original pottery areas, there are more than a thousand traditional pottery factories and traditional pottery kilns that provide a very attractive area. In the village there is the beautiful scenery of the Moon River. The Moon River is the main life-line river of Isan people and it is also the origin of Isan culture and history including Dan Kwian pottery.

![Figure 1: The product of Ban Dankwian](image1)

2) Learning process model

2.1) Informal learning

In the past, people in Dankwian pottery community did pottery. The ancestors passed on the experiences to the descendants. They learned the pottery process when they were young, absorbing the knowledge by observing. Anytime when they wanted to know about pottery, their parents taught them. Currently, it is more than 70% of households did pottery. In the community, there was a distribution center selling the product for the tourists. All of the products are made by the people in the community. The working motivation for this potter’s career is that they could working at their house or in their community, be able to gain sustainable income and can do living by doing what they love to do.

They learned to do the pottery in Thai style by themselves. They did not rely much on the new technologies to produce their products. Recently, there were official organizations that support the training in the community.
Dankwian pottery community uses the informal learning as 60% of people learning through a family, 30% of people look and watching learning, and 10% of people train via the government officials and learning by doing.

![Image](image1.png)

Figure 2: The owner demonstrates the Dankwian pottery productions

2.2) Nonformal learning network

They learn via the nonformal network inner and outer their community. They have 2 villages to be a network for career development. The learning process bases on the data participation, data co-ordination and co-practice for pottery production.

Conclusion

The Dan Kwian Pottery Village is situated in Nakhon Ratchasima province. It is situated in the lower-northeastern Thailand. The village maintains traditional pottery products, local wisdom and knowledge in the traditional production of pottery and ways of living as in an agricultural society. According to the learning process, informal learning; the ancestors passed on the experiences to the descendants. They learned the pottery process when they were young, absorbing the knowledge by observing. So, the informal learning as through a family, look and watching learning, training via the government officials and learning by doing. Nonformal learning; they learn via the nonformal network inner and outer their community.

Recommendation

The recommendation conducts the community should enhancing the systematic learning process via the network to be the cultural career development. The concerning government officials must to support them continually as follow;
1) The study indicated that DanKwian has a potential and uniqueness both in the historical background, traditional pottery, indigenous houses with a pottery manufacture, uniqueness in culture and ways of life and its beauty in nature and culture. It should building up the level of participation of the local people to enhance the sustainable career both of the old local people and new generation.

2) In order to develop cultural way of living with local people, experts and all stakeholders should create cultural networking from the others community of the DanKwian Pottery Village.

3) To develop DanKwian cultural pottery career, there should be more developments the new jobs for the local people.

4) There should be training courses on information and knowledge about cultural product of DanKwian. These courses can be promoted through the mass media to local people to increase the actual knowledge and understanding of Dan Kwian heritage.

5) To build up awareness on the significance and preservation of their local resources, children and students should be encouraged to learn about DanKwian in and created by providing knowledge and understanding of their heritage value.

Reference


A MODEL OF SELF DEVELOPMENT TO PROMOTE SELF EFFICACY AND HAPPINESS OF THE FOURTH YEAR NURSING STUDENTS, COLLEGE OF ASIAN SCHOLARS, ACADEMIC YEAR 2009, KHON KAEN THAILAND

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ABSTRACT

This quasi experimental of self development research (one group pre-test – post test design) aimed to study the impacts of self development model to promote self efficacy and happiness of the fourth year nursing students. The intervention program of journal writing for catharsis the feeling of daily activities was used. The 53 sampling cover 100 % were the fourth year nursing students with the guidelines of journal writing manual from the researchers. The students wrote their journal writing at bed time. Sometimes writing and painting everyday using the criteria from students’ manual. The students met the researcher once a month to correct the writing in creative way with encouraging furthering the writing.

When finishing the intervention. The student had to complete their self evaluation. The researcher evaluated the students’ writing. The questionnaire’s tools were divided in to three parts. Part one the stress measurement of Sauengproong revised 2547 by Sauengproong Hospital 20 items. Part two the Index for Happiness 2547 (Department of Mental Health) 15 items. Using statistic concurrence validity equals 0.87 and 0.49 and the reliability of the tools 2 times periods of 3 months between November 2552 and January 2553. Using analyse data by frequency, means and percentage. Analyse the stress measurement by rating scale 5 levels and the index for happiness 4 levels using frequency, means and percentage, compared with -test independence and analysed with open ended questionnaires by content analysis and concluded of frequency and percentage. Part three Journal Writing manual of nursing students. Data was collected by using analysis the questionnaires of the good and the bad of journal writing of nursing students. Data was analyzed by using frequency and percentage. The study revealed that diary books and journal writing elaborated the felling and journal writing effected the promotion of happiness and decreased stress of the fourth year nursing students of College of Asian Scholars. The sampling had stress level pre-test higher than post-test with significantly statistic level 0.05 and the sampling had happiness level post-test higher than pre-test significantly of statistic level 0.05

Keywords: Journal Writing, Stress, Happiness, Self Efficacy, Nursing Students
Introduction

BACKGROUND AND SIGNIFICANCE OF THE PROBLEM

From the training program to promote happiness of the fourth year of nursing students using relaxation technique and guide imagery were behavioral theories to create the potential of learning and skills for confidential. Because of the fourth year nursing students were going to be graduated nurse had to cope with life events and stress affected learning and judgement, affected caring patients, interpersonal relationship, and effective communications by using listening, understanding. Stress affected cognitive functions, growth hormone changes and dementia. Journal writing was the cognitive therapies stressed at elaborating the filling in life activities and jobs of nursing, decrease tension, anxiety, anger, and physical symptoms such as headache, muscle pains, weakness nausea, vomiting, stomachache etc. Journal writing was behavioral theories and stress management. Stressed at catharsis, self awareness, problem solving, empowerment and self efficacy.

The fourth year nursing students passed the practicum of primary caring the patients. Using role functions of nursing under the supervision of clinical instructors aimed to promote the students clever, good, and happiness. It was the policy of the commission government in higher education and the properties of graduates of Asian Scholars toward visionary discipline integrity. The researchers thought that promoting happiness to the fourth year nursing students to be strong and empowerment and self efficacy have long happiness to be good nurses in the future with the happiness of physical, mental emotional, social and spiritual needs to effect of good practicum in nursing.

RESEARCH OBJECTIVE

The objective of this study was to study the impacts of self development model to promote self efficacy and happiness of the forth year nursing students. Using the intervention program of journal writing for catharsis the filling of daily activities. The specific objectives as follows:

1. To develop the happiness program for the students.
2. To promote happiness and relaxation for the students
3. To have self efficacy and to select appropriate in problem solving

RESEARCH HYPOTHESIS

1. Means stress scores of the fourth year nursing students, College of Asian Scholars in the sampling posttest using diary books and journal writing lower than pretest using diary books and journal writing.
2. Means happiness scores of the fourth year nursing students, College of Asian Scholars in the sampling posttest using diary books and journal writing higher than pretest using diary books and journal writing.

RESEARCH METHODOLOGY

This research is quasi – experimental Research measures one group pretest-posttest design for development happiness of the fourth year nursing students, College of
Asian Scholars. Using Journal Writing that is cognitive theory that effects cognitive to elaborate daily lives. Problems and to write diary books. The methodologies are such as:

**Populations and Sampling**

The fourth year nursing students Faculty of Nursing College of Asian Scholars 53 students 100 percent.

**Methodologies**

The components of the questionnaires are divided into four parts

Part 1: General characteristic questionnaires of sampling are gender, age incomes, daily activities except learning. The most trusty persons. The counseling persons when they feel happy, when they fell grief. Stress management the one who cause happy, self esteem etc.

Part 2: The stress assessment tools (Suenproang hospital chiangmai revised 2547) 20 items. The questionnaires are asked from the passed 6 months of the assessments of stress level 5 levels such 3 median stress 4 more stress and 5 the most stress

Part 3: Happiness assessment tools using happiness indicator of department of mental health 2547. 15 items. The questionnaires are asked about one months passed until now. Have 4 answers such as 1 means No happiness of the Event no symptoms of not agreement that event, 2 means mild feeling about that events

Part 4: Journal Writing from diary books to elaborate with varieties such as writes poems, painting, or elaborate the feeling in diary books. Using time period of three months to analyse from the items. The researcher concluded the happiness and the grief from journal writing

Using the questionnaires tools to concurrence validity and stress assessment tools suenproong hospital revised 2547 equal 0.87 and the happiness assessment indicators if department of mental health 2547 equal 0.49. The part 1 of the questionnaires are received content validity from the expert equal 1.0. The reliability of the tools using 30 students form the faculty of nursing students University of Maharajthanee Undorn. The reliability of the stress assessment tools are 0.79 and the reliability of happiness assessment indicators revised 2547 equal 0.83

**The Methodology**

The sampling are informed of consent by the researchers explained the step of the research, the methodology, the period of the research and the useful of the research and the commitment for the methodology such as.

1. The quantitative research. From receiving questionnaires 2 times, pretest and posttest designs. 3 month, From November until January 2553. 53 questionnaires
2. The qualitative research. From diary books and journal writing from the commitment of the procedures of the researchers to know the negative opinions and positive opinions. The researcher encouraged the nursing student to further their writing and keep confidentiality. Unit 3 months periods

**The results of the study**

The results of the study are such as:

1. From analyzing general characteristics using frequency, means, and percentage.
2. From comparing pretest and posttest of journal writing. Using t – test independence

3. Analysing open ended questionnaires from journal writing to free elaborate. The researchers analysed by using inductive content analysis and conclusioned with, the questionnaires answers using frequency and percentage.

RESULTS OF THE STUDY

The research revealed that:

From the sampling of 53 students male 6. Female 47. The average age 22.23 years. The average height 161.83 cms. The average weight 52.35 kgs. Average incomes 5,518.87 per month. The most incomes are 60.5 from the guardians. The second from the educational funds 35.2% and usual daily activities except learning included T.V., games survey from internet 35.45% The second are 23.64% playing music singing and listening music 20% The less are physical exercise sports. Prays for the monks 12.73% and rescurity volunteers, merchants 1.47%

The most reasons of the sampling courtship in natural for teenage to have intimacy to consult in everything 57.89% The second believing that they are growing to perceive social life activities 26.32% The most reasons no courtship are no times want to finish learning 44.44% Couldn’t find someone for themselves 27.78% Wanted to be free, to stay alone 11.11% and

From the study showed that the most they thought of someone when they feel happy and grief. The sampling the most (parents and relatives) the guardians 51.14 63.37 and 66.67% The stress management the most talking with the families 27.14% Playing music singing, listening to the music 25% Stayed alone meditation 11.96 Watching television, playing games, watching internet journal writing, resting 11.96% The most grief life events such as learning 50.75% financial 13.85% Afraid of hopeless and except 10.75% Families problems. Caused the families failure 7.69% The less such as the love friend and health problems the blaming verbal 6.15 4.62 1.55

The causes of happiness are the successful of learning, financial the love and the families 39.68% The second receiving the love from parents, sincerely, understanding from friends and the lovers 30.16% and every life events, got smile and relax 22.22% The self esteem from warmth families. Supporting from the parents friends 33.93 The second was going to be graduate nurse 32.14% Doing the most responsibility to do the like things. Helping friends proud to be pretty women. Good mind of self confidence. More adaptive in coping with the others 10.71 8.93 7.14 and 1.79

Part 2 : The result from the stress assessment tools from the passed six months. The sampling of pretest and posttest in mediam level. (means 3.13 SD. 0.87) when analyse the items the results showed that the sampling had the most stress level in 4 items such as 1) Afraid failure in working 2) Not reach the goals 3) Feeling of the competitions 4) Worries of pretest and posttest had less stress level (means 2.14 SD. 0.47) In consideration 6 items. The result showed that. The less level of stress (means 2.14 SD. 0.47) When conderation 6 items showed mediam level such as 1) Afraid of failure working 2) Not reach in goals 3) Feeling of competitive 4) Worries 5) Poor remember 6) Easy weakness

Part 3 : The result of analyse of happiness assessment indicator from passed one month. The sampling of pretest of happiness had fair (means 27.64 SD. 0.60) The sampling had more happiness (good) in two components such as 1) Feeling of happiness
CONCLUSION

This Quasi Experimental Research ding to study the impacts of self development model to promote self efficacy and happiness of the fourth year nursing students. Using the intervention program of Journal writing for catharsis the feeling of daily activities. Receiving the guidelines of Journal Writing manual from the researchers. After 3 month period when finishing the intervention , founded that the stress level at post test was lower than pretest with statistic significantly (P<0.05). The mean score of happiness at post test was higher than pretest with statistic significantly (P<0.05), and the results revealed that Journal writing in self evaluations . Were to promote happiness to create catharsis , relaxing the tense of muscle of neck and shoulder, self awareness, appropriated of problem solving. Using self efficacy to promote happiness impacted physical, mental , affects and social in holistic approach

Using diary books and journal writing to write daily activities. Effects promoting of happiness and decreasing stress with two reasons. 1) to promote the nursing students to elaborate creatively 2) the clinical instructors understand the nursing students problems. Included the good opinions and bad opinions by using journal writing made them feel empowerment and potential in effective learning. The suggestion of this study. Using journal writing to promote happiness for all of nursing students College of Asian Scholars and the others.

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Philosophy, Organization, Operational Policies of Student Support Services at Selected Mid-Tier International Schools in Bangkok, Thailand

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ABSTRACT

This study attempted to investigate the nature and effectiveness of Student Support Services practiced in three mid-tier international schools in Bangkok, Thailand. All three schools investigated are accredited by western accrediting bodies and run the American curriculum. As such, most Student Support Services principles and policies employed are distinctly American in nature. Information about each school’s Student Support Services was gathered by collecting and examining relevant school documents such as policy manual, student and faculty handbook as well as contents published in the official website and through interviews and survey of teachers, students and parents of respective schools. Analysis of the above-mentioned qualitative and quantitative data revealed that students were the most dissatisfied with Student Support Services provided by each school. It was also found that while all three schools claimed and professed progressive and student-centered philosophy to education but, they hardly reflect this in real-life. All schools still use the traditional behaviourist approaches of rewards and punishment, external control and obedience by force. These could be replaced by a thorough understanding of, and sincere enforcement and implementation of the principles of positive psychology, student advisory and other more contemporary views and theories of child development and educational philosophies.

Keywords: Mid-Tier

Introduction

BACKGROUND OF THE STUDY

Students make up the most important clientele in the international school industry in Bangkok, Thailand. Since international schools are privately owned and run, they tend to ensure excellence in quality of services rendered to both parents and students. Unlike public schools that are fully funded by the government, private schools do not get any subsidy from the Ministry of Education and hence operate on independent budgets. Basically, private international schools in Bangkok run any one of the following programs – American, British, Singapore, or Indian. There are also schools that run unique programs that combine one or more of these education systems. Most of these schools cater to the needs of expatriate children.
This research comes as a direct result of the researcher’s desire to specialize in the field of student affairs and become better informed, through research and review of related literature, about the characteristics that make up a good student support system and accompanying skills for its successful implementation and evaluation.

STATEMENT OF THE PROBLEM:

This study aims at investigating structures, policies and procedures that govern student support services in mid-tier private international schools in Bangkok, Thailand. The researcher has chosen mid-tier international schools because he comes from one.

It is also the intention of the researcher to investigate the extent to which student support services affect academic achievement and/or learning experiences of students.

PURPOSE OF THE STUDY:

This research will accomplish the following objectives at the end of its systematic inquiry into several student support services models from a few mid-tier private international schools:
1. To explore and describe the following aspects of student support services in selected mid-tier schools.
2. Structural setup (organization)
3. Philosophy, vision and mission
4. Staffing
5. Services provided
6. Policies and procedures
7. Extent to which the student support services align with overall school vision, mission and operation
8. Effectiveness as perceived by students
9. To identify similarities and differences in student support services among three selected mid-tier schools in Bangkok, in the following areas:
   a. Structural setup (organization)
   b. Philosophy, vision and mission
   c. Staffing
   d. Services provided
   e. Policies and procedures
   f. Extent to which the student support services align with overall school vision, mission and operation
   g. Effectiveness as perceived by students

10. To identify strengths, weaknesses and gaps, through intra- and inter-case analysis of field notes collected from the selected schools in Bangkok.
11. To propose a student support services model through careful examination of information obtained through literature review and field notes from the selected schools.
SIGNIFICANCE OF THE STUDY:

At the heart of good student support services is the sole aim of providing pupils with an effective learning environment that facilitates maximum academic and personal growth. This study will give an in-depth insight into current beliefs, policies, and practices of student support services. Findings from this research will be useful to inform school administrators, particularly personnel working in student support services and related departments. Ultimately, the study will benefit students as it will attempt to improve services rendered to them at school. Strengthening student support services yield positive outcomes in the following areas:

1. Academic achievement
2. Student and parent satisfaction
3. Students’ social-emotional well-being
4. Marketing
5. School image

REVIEW OF RELATED LITERATURE

The success of any education system largely depends on the effectiveness of its student support services. So it is necessary to explain the term student support services. Rashid (1998) described the term student support services as the way and means that provide additional help to learners. It refers to the help, which a learner receives along with the learning experiences.

METHODOLOGY

This chapter presents descriptions about research design, methodology and procedures to be followed during the course of the investigation. It includes identification and explanation of research design employed, data collection site and participants, data collection procedures, and data analysis tools.

RESEARCH DESIGN:

After a careful examination of research questions and objectives, it is deemed that the most appropriate approach to be utilized in this study would be the qualitative method. This is due to the following factors:

The researcher is interested in exploring and investigating the quality of relationships, activities, situations, or materials within the context of research framework and objectives.

1. The natural setting is a direct source of data, where the researcher is a key part of the instrumentation process.
2. Data would be mainly collected in the form of words and will not involve numbers.
3. Content analysis would be the primary method of data analysis.
4. The researcher is interested in how things occur and are experienced, particularly from the perspectives of the participants of the study.
5. The researcher would utilize multiple data collection procedures/approaches, namely, interview, existing school documents containing policies, procedures, and description of operation and survey.
6. The researcher would examine participants’ perspectives toward events, beliefs, or practices. More specifically, the researcher would utilize action research to fulfill the objectives of this study.

RESEARCH AND PARTICIPANTS:

For the purpose of this study, the researcher would select three mid-tier international schools in Bangkok. This selection would be purposefully done based on issues such as accessibility, characteristics and availability of student support services in the selected schools.

INSTRUMENTATION:

Being a qualitative research, the researcher becomes the tool for data collection as well as the one who interprets the same. Multiple approaches to data collection would be utilized to answer research questions posed in the beginning of the study, such as:
1. Informal or unstructured interview of school leader(s)
2. Review of existing school documents containing information about policies, procedures and operation of student support services
3. Survey of teachers, students and parents – items of the survey are shown below. The survey tool will utilize a 3-point response options Likert-scale – YES, NOT SURE, NO.

DATA COLLECTION PROCEDURES:

The researcher conducted a pre-test of the survey tool to establish its validity and reliability. This was done with a school other than the ones to be included in the final data collection.

The researcher then proceeded to data collection in the three selected mid-tier international schools in Bangkok. Once the data was collected (from multiple sources) he then recorded his observation about student support services in each of the three schools separately, and later, in comparison to each other – looking for commonalities and differences.

DATA ANALYSIS:

A typical qualitative data analysis would entail the following:
1. Making sense of massive amounts of data called the field notes – in this case, the field notes come from informal or unstructured interview, review of existing school documents and survey
2. Organizing the data (content analysis)
3. Reducing the volume of information
4. Identifying significant patterns (intra- and inter-case analysis among the three selected schools)
5. Constructing a framework (structure) for communicating the essence (actual meaning) of what the comprehensive data reveal.

PRESENTATION AND ANALYSIS OF DATA

This chapter presents the field data collected for the purpose of answering research questions raised at the beginning of this investigation. It has to be noted that a combination of qualitative and quantitative data was collected from three selected mid-tier international schools in Bangkok, Thailand. Bulk of the information for analysis comes from official school documents regarding philosophy, policies and practices of student services department of the three schools. Apart from that, surveys were conducted to collect data from parents, students and teachers to ascertain their opinions about the range of services provided by student affairs department of each school investigated. Additionally, wherever necessary, the researcher also sought to gather information through interviews of student services department staff, students, parents and teachers.

School A

Background

School A is a private Christian school operated by the Seventh-day Adventist Mission in Thailand. Its curriculum is based on the American system of education and English is the medium of instruction. For more than fifty years, the school has provided English education to its students. In 1992, School A earned international status from the Thai government and later earned accreditation status from the Western Association of Schools and Colleges (WASC), in Burlingame, California, USA. It is also accredited by the Accrediting Association of Seventh-day Adventist (AAA) in Maryland, USA.

Philosophy

“True education involves the whole person and promotes the harmonious development of the physical, mental, social and spiritual dimensions of human nature.”

Mission Statement “School A offers a challenging Christ-centered academic program, giving the students the opportunity to exercise and expand their varied abilities and potential.

Student Administration

A student’s compliance with the school code of conduct and cooperation in the discipline process means he/she is willing to accept responsibility for his/her behavior. By abiding by the regulations, students develop a strong and stable positive character.

School A’s philosophy of discipline seeks to encourage and develop self-control. It is a process to assist students to live by right principles. School A’s student administration dept. believes that self-discipline is a necessity in the maturing process.
According to School A, discipline enhances learning. Each teacher is given the responsibility of enforcing classroom regulations in accordance with school philosophy and mission statement. The school expects full cooperation from both students and parents in the education of the students and in adherence to all school policies and regulations.

**Guidance**

School A’s guidance program is designed to help each student develop as a total person as he/she moves through different levels. This is accomplished by providing counseling, coordinating and consultation through individual and group counseling, assessing student’s social and academic strength and limitations, crisis intervention, facilitation of communication among students, parents, teachers, and administrators, and career development support.

Individual counseling: The counselor is trained to help students with problems arising from academic, personal, social, or family conflicts.

Career development: Support and assistance is offered to students in making the right decisions about college through career assessments, college trips/fairs, guest speakers, career day and consultation with the counselor.

**Chaplaincy service**

School A’s Chaplaincy dept. serves a dual role. The chaplain works as both guidance and counselor and spiritual counselor. The chaplaincy adds a dimension of spirituality and a holistic perspective to School A by integrating spirituality into as many aspects of campus life as possible, whether it be music, chapel programs, drama, service, personal development, or even sports. It is the goal of the chaplaincy department to provide spiritual support in as many areas of students’ lives as possible.

**School B**

**Background**

School B was founded in August 2003 and is a private Christian school located in one of Bangkok’s busiest business and tourist districts. Featuring an American (California) Curriculum, School B purports to offer the highest quality education from Kindergarten through Grade 12. Affiliated with the Thailand Adventist Mission

**Philosophy**

School B is dedicated to providing a supportive environment in which students of varying ethnic backgrounds can pursue a value-oriented education that focuses on academic excellence and moral integrity. It seeks to provide a dynamic atmosphere where learning is stimulating and creativity is encouraged, as well as a secure haven where love and respect are the foundation of all interaction. Most importantly, School B seeks to provide an education that prepares students for joyful, unselfish service to God and society.
Vision

School B intends to foster within each child an appreciation of Christian values and a desire to develop oneself mentally, physically, socially, and spiritually, and thus to become a responsible citizen of the world. The school also seeks to provide holistic education where serious academic study is combined with the development of personal values such as honesty, love, industriousness and respect for self and mankind at large.

Discipline

School B uses the Citizenship System – since the school is an environment for serious study and the development of life-long positive character traits, all members of the school community (students, staff, faculty, administration and parents) are expected to abide by the mission of the school to provide academic excellence in conjunction with ethical and spiritual awareness and growth. Students attending School B have to make a commitment to lead a compassionate, respectful and selfless life. Part of this commitment is the diligent study of and adherence to the school’s citizenship system (program).

Students are expected to learn self-discipline and self-reliance through values classes, assemblies, and clubs such as Adventurer, Pathfinder, lessons in core and non-core classes, and countless other ways. Clear rules for conduct are articulated and emphasized for the benefit of all students. School B purports that students learn best within a structured environment, and that the school provides an appropriate structure while still allowing room for self-expression and decision making. Both students and parents are expected to cooperate fully with school policies and guidelines, and the school firmly believes that such cooperation inevitably results in clear, easily understood and therefore reasonable expectations.

Note: at School B, Citizenship grades and disciplinary actions become part of a student’s permanent record.

Summary

Students at School B are connected to a system of support services which include a library, computer lab, Dyn-Ed Lab (for ESL learners), dining services, clinic, and spiritual programs (i.e., Pathfinder, Chapel, Morning Worship period). Additional services include extra-curricular and after-school programs such as ESL support, Taekwondo, Chinese classes, school rules, incentives-reward, departments in athletics (Boys and Girls basketball team and Boys football team), the fine arts and communications.

School C

Background

School C investigated in this research opened its doors in 2006 to students in grades 1 to 9. It now services grades 1 to 12 with current enrollment of 274 students. Located in the heart of Bangkok, Thailand, School C first opened its doors in the fall of
School C offers a rigorous international curriculum based on the American system, modified to take into account major regional and philosophical differences, and to adhere to Thai Ministry of Education regulations governing international schools. Students at School C also participate in non-athletic competitions including debate, chess, and performing arts.

**Vision**

School C envisions to be globally recognized for its supportive and innovative educational programs that empower each student to achieve his/her highest potential.

**Mission**

School C has a mission to deliver quality, college preparatory education to a diverse, international group of students in a nurturing environment of creativity and discovery, which inspires a passion for learning through collaboration between the home and the school community.

**Student Support Services**

School C has created Student Support Services Department which provides students with a coordinated system of services that allow for maximum effectiveness in meeting students’ academic and personal needs. This department is responsible for providing appropriate professional support for students when they need assistance with academic or personal matters.

**Findings**

Similarities and Differences The researcher utilized intra- and inter-case analysis and generated the following table summarizing the findings from the bulk of information collected about the three schools’ students support services departments.
<table>
<thead>
<tr>
<th>Intellect, emotion, and spiritual as complex and comprehensive as School A, although the basic philosophies of the two schools are similar – focus on the development of total child – physical, intellect, emotion, and spiritual</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Background</strong></td>
</tr>
<tr>
<td><strong>Academic affiliation</strong></td>
</tr>
<tr>
<td><strong>Discipline</strong></td>
</tr>
<tr>
<td><strong>Home-School ties</strong></td>
</tr>
<tr>
<td>Student Services</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>Comes under the student administration department; Most fundamental services that are required in any international school, plus student activities that are spiritually based – i.e., health (clinic), counseling &amp; guidance, chaplaincy services (spiritual), sports, extra-curricular activities, awards and honors, school trips, school events, and academic support such as ESL and learning support in various forms.</td>
</tr>
<tr>
<td>Has created Student Support Services Department which provides students with a coordinated system of services that allow for maximum effectiveness in meeting students’ academic and personal needs. This department is responsible for providing appropriate professional support for students when they need assistance with academic or personal matters. The school considers that its provision of student support systems is effective and all teachers are committed to facilitating students’ academic growth; student services department caters to all aspects of student development except Spiritual;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Students’ Perception</th>
</tr>
</thead>
<tbody>
<tr>
<td>47% Yes</td>
</tr>
<tr>
<td>37% Not Sure</td>
</tr>
<tr>
<td>15% No</td>
</tr>
<tr>
<td>Interpretation: Not so favorable</td>
</tr>
</tbody>
</table>

|  | 49% Yes | 32% Not Sure |
|---|---|
|  | 17% No | Interpretation: Not so favorable |
### Parents’ Perception

<table>
<thead>
<tr>
<th>Perception</th>
<th>Yes</th>
<th>Not Sure</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>64%</td>
<td>54%</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>27%</td>
<td>37%</td>
<td>26%</td>
<td></td>
</tr>
<tr>
<td>8%</td>
<td>10%</td>
<td>13%</td>
<td></td>
</tr>
</tbody>
</table>

Interpretation: Somewhat favorable

### Teachers’ Perception

<table>
<thead>
<tr>
<th>Perception</th>
<th>Yes</th>
<th>Not Sure</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>74%</td>
<td>74%</td>
<td>76%</td>
<td></td>
</tr>
<tr>
<td>18%</td>
<td>18%</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>4%</td>
<td>4%</td>
<td>2%</td>
<td></td>
</tr>
</tbody>
</table>

Interpretation: Highly favorable

Since all three schools investigated are accredited by the Western Association of Schools and Colleges (WASC), the following guidelines are strictly followed to ensure the best possible services to students and parents (in other words, each of the three schools follows these international benchmark in running its individual student support services department):

**Caring, Concern, High Expectations:**

The school demonstrates caring, concern, and high expectations for students in an environment that honors individual and cultural differences.

**Student Self-esteem:**

The school fosters student self-esteem through high expectations for each student and recognition of successes.

**Mutual Respect and Communication:**

Mutual respect and effective communication among and between staff, students, and parents is evident.

**Teacher Support and Encouragement:**

There is a level of support and encouragement for teachers to use innovative approaches to enhance student learning.

**Policies, Codes, Procedures, Resources:**

The school has policies, codes, and procedures and resources (e.g. facilities) that ensure a safe, healthy, nurturing environment.
Personalized Student Support:

The school provides personalized student support correlated to student achievement of the expected school-wide learning results and the curricular goals for all students including those admitted with special needs and those learning English as an additional language.

School Support Systems:

The school coordinates a system of support services that provides for maximum effectiveness, including the processes for intervention and referral.

Strategies Used for Student Growth/Development:

The school uses strategies to develop students’ self-esteem, a personalized approach to learning, and connections to the learning environment.

Support Services and Learning:

The school ensures that the support services and related activities have a direct relationship to student involvement in learning.

Co-curricular Activities:

The school ensures that the co-curricular activities are linked to the expected school-wide learning results.

Adequate Available Services:

The school has available adequate services, including referral services, to support students in such areas as English language support, special needs, academic assistance, and, career and personal counseling.

Student Involvement in Curricular/Co-curricular Activities:

The school regularly evaluates the level of student involvement in curricular/co-curricular activities and student use of support services.

Student Perceptions:

Interviewing and dialoguing with students assists the school in evaluating the effectiveness of the academic and personalized student support.

Regular Parent Involvement:

The school has regular processes for the involvement of parents and community.

Use of Community Resources:
The school uses community resources to support students such as professional services, business partnerships, speakers, etc.

Community and Student Achievement:

The school ensures that the parents and school community understand student achievement of the expected school-wide learning results through the school's program.

DISCUSSION OF FINDINGS:

Student, Parent and Teacher Perception toward Student Services Department

There is a definite pattern in the responses of students, parents and teachers. This was seen in all three schools, consistently. As such, there should some validity to the possible reasons as to why this phenomenon was observed. More specifically, it was observed that students in each of the three schools rated their student support services as not up to the mark and satisfactory. Parents in each of the three schools rated their student support services as being moderately satisfactory. However, teachers in all three schools rated their school’s student support services as highly satisfactory.

Out of three groups of people surveyed, students’ responses seem to be the most accurate reflection of the three school’s current student support services programs and its effectiveness. This is because students have both the knowledge about different aspects of student support services; as well, they experience all these services first-hand and hence possess direct access to ideas and feelings about the same. Parents’ rated students support services as moderately satisfactory – this may be due to the fact that parents usually possess partial knowledge and understanding about what really goes on in the school.

Lastly, it was seen that teachers rated each of the three school’s student support services as highly satisfactory – because teachers take active roles in the various student support services events, activities and programs in their school, they are prone to self-serving or group-serving biases, i.e., it is not possible for a teacher who plays an active supporting role to the school’s student support services and then rate its services as not being good.

Gaps in Student Support Services Practice

While all three schools purport and advocate for self-discipline by requiring students to take responsibility for their own actions, this was not practiced. There is an inconsistency in what is stated in the policies regarding how to discipline students and develop their individuality and how this is actually carried out. This also points out the fact that each of the three schools is still following the conventional medical model of curing a disease when it surfaces, instead of preventing the same ahead of time.
All three schools are guided by behavioristic approaches to dealing with disciplinary issues and solving student-related problems. However, a sincere effort could be made by all three schools to motivate students to take responsibility for their own actions and require them to behave not to avoid punishment or gain rewards, but because of intrinsic reasons.

Additionally, all three schools claim to be student-centered in their approaches to providing students with personalized services. However, this claim is contrary to actual practice. There are no services targeted at profiling individual student or strengths mapping (as is done by more contemporary educators who advocate for positive psychology).

Thus, the schools should focus on students’ strengths, talents, and existing abilities – and build on, celebrate, and accept them unconditionally – this should happen to every student regardless of past and current academic achievement, past and current behavioral records, and in the context of the belief that every student has the potential to succeed if only given the time, opportunity and the right environment that is stimulating, accepting, and positive.

Lastly, it is also found that all three schools do not have an internal evaluation process to gauge their student support services on a regular basis, apart from the one required by an external accrediting agency. Most schools do not rely on empirical data for one or more of the following reasons: 1) no adequate, qualified staff to work on research and development, 2) expenses involved in regularly assessing and evaluating the student support services programs, 3) lack of support from administrative staff, 4) not use to the culture of researching and making important decisions based on empirical data, and 5) superficial nature of all the services provided by private international schools as they are usually more commercial and may not be truly interested in students’ welfare (also, there is always a mismatch between expectations and goals of school ownership and school managers, as well as staff and students/parents). Students would be better served if all three schools conducted regular surveys and relied on students’ and parents’ actual feedback to improve and upgrade respective student support services departments.

CONCLUSION:

Students are the most important customers in a private international school. In the corporate world, businesses succeed only when their customers’ needs are satisfied. In the same manner, schools should seek creative and innovative ways to constantly care for students’ welfare. Since happy students would perform well academically, it is imperative that schools focus on setting up and effectively running appropriate student support services that aim at maximizing individual potential, acknowledging, celebrating and accentuating strengths and finally bringing out the best in students as reflected in their physical, emotional, social and spiritual development. Schools should be current and rely on recent developments in the areas of positive psychology, neuroscience, humanistic psychology, student advisory, and principles of 21st century education to guide its student support services practices. Once students feel satisfied and happy to be in school, their level of motivation in the process of education improves significantly.
RECOMMENDATIONS:

This study could be conducted using different research methodologies and for several other reasons, as indicated below:

1. Awareness of school administrators, faculty and staff about contemporary ideas and practices in the field of student support services. This could be a simple descriptive study.

2. Case study of schools that are currently using positive psychology, student advisory, neuroscientific principles, etc.

3. Conduct a quantitative study to validate tools that could be used to regularly gauge quality of services provided by the student support services department.

LIMITATIONS:

This study was heavily reliant on official school documents – the weakness in such data is in the mismatch between the intentions of the author (of such documents) and the implementers of policies and procedures stated therein. Most school documents are idealistic with little or no relationship whatsoever with what actually transpires in the school. As such, the primary data obtained for this study and the analysis thereafter must be treated and accepted with caution. The documents may not necessarily reflect everything that is taking place in the school’s student support services department – in the same way, there is a possibility that new programs could have been added to the student support services that are not mentioned in the documents (especially if the documents are not updated frequently). As such, all findings presented in this paper are strictly based on what was read, observed, heard and researched from school documents provided to the researcher at the time of data collection.

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Simpson O (2002), Supporting Students in Online, Open and Distance Learning, 2ed. UK, Kogan Page.
A STUDY OF ENGLISH READING COMPREHENSION AND MOTIVATION OF MATHAYOM SUESA V DEBSIRIN KLONGSIBSAM PATHUMTHANI SCHOOL UNDER THE OFFICE OF PATHUMTHANI EDUCATIONAL SERVICE AREA 2 USING THE INSTRUCTIONAL PACKAGE PROGRAM TEACHING METHOD

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ABSTRACT

The purposes of this study were to study English reading comprehension and motivation towards English reading comprehension of Mathayom Sueksa V students Debsirin Klongsibsam Pathumthani School using the Instructional Package Program Teaching Method.

The samples used in this study were 45 of Mathayom Sueksa V students Debsirin Klongsibsam Pathumthani School Amphoe Lamlukka, Pathumthani. They were selected by purposive sampling into the experimental group.

The instruments in this study were lesson plans using the Instructional Package Program, an English reading comprehension tests, and motivation questionnaires towards English reading comprehension. The data were statistically analyzed by arithmetic mean, standard deviation and t-test for dependent samples.

The results of the study indicated that:

1. English reading comprehension of Mathayom Sueksa V students at Debsirin Klongsibsam Pathumthani School using the Instructional Package Program Teaching Method After the experiment was significantly higher than before the experiment at the .01 level.

2. Motivation towards English reading comprehension of Mathayom Sueksa V students Debsirin Klongsibsam Pathumthani School using the Instructional Package Program Teaching Method After the experiment was significantly higher than before the experiment at the .01 level.

Keywords: English reading comprehension, the Instructional Package Program Teaching Method, Motivation towards English reading comprehension
A COMPARISON OF ENGLISH READING COMPREHENSION AND
ATTITUDES TOWARDS READING ENGLISH OF
MATHAYOMSUEKSA II STUDENTS AT BANBERKPRAI SCHOOL
BASED ON PROGRAMMED INSTRUCTION AND
CONVENTIONAL TEACHING METHODS

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ABSTRACT

The purpose of this study was to compare English reading comprehension and attitudes towards reading English of Mathayomsueksa II students at Banberkprai school based on programmed instruction and conventional teaching methods.

Samples used in this study were 52 Mathayomsueksa II students at Banberkprai school, Chombueng Ratchaburi Province. They were randomized by Simple Random Sampling into the experimental group and the control group. Each group consisted of 26 students. The experimental group was taught using the programmed instruction while the control group was taught using the conventional teaching methods.

The instruments used in this study were lesson plans using the programmed instruction method, lesson plans using the conventional teaching method, the English reading comprehension test and questionnaires on attitudes towards reading English. The t-test for dependent samples and t-test for independent samples were used to statistically analyze the data.

The results of this study indicated that:
1. English reading comprehension of the students who were taught using the programmed instruction after the experiment was significantly higher than before the experiment at the .01 level.
2. English reading comprehension of the students who were taught using the conventional teaching methods after the experiment was significantly higher than before the experiment at the .01 level.
3. English reading comprehension of the students who were taught using the programmed instruction after the experiment was significantly higher than the students who were taught using conventional teaching method at the .01 level.
4. Attitudes towards reading English of the students who were taught using the programmed instruction after the experiment was significantly higher than the students who were taught using the conventional teaching method at the .01 level.

Keywords: English reading comprehension, Programmed Instruction, Attitudes towards reading English
The Study of Learning Outcome Using Analogy in the Effect of Concentration on Chemical Equilibrium

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ABSTRACT

The purposes of this study were to develop student conceptions about the effect of concentration on chemical equilibrium using analogy teaching strategy. Moreover, this research was emphasized on finding out the suitable analogs for learning chemical equilibrium. The participants were eleven 11th grade students in small school in Khon Kaen. All of them had low learning achievement in science and showed some negative attitude toward science. Data from students pre and post concept survey; students’ interviews; classroom observations; and students’ works were analyzed. The student responses on concept survey were categorized using criteria adapted from research by Haidar (1997)

The results showed that most students’ alternative conceptions did not develop into more scientific conceptions. Most students had many difficulties in learning using analogy namely, lacking of basic knowledge; unclear or unfamiliar with analog; and having low competent in writing and speaking. Also, data from students’ interviews and classroom observations showed that the students were not aware of similarities and differences (like and unlike) between analog and scientific concept. However, the students responses‘ rate were increase during the process learning and most students were willing to participate in all activities.

Keywords: Analogy, chemical equilibrium

Introduction

Chemical equilibrium is an important basic concept for other topics in for example, acid-base in everyday life; electrochemistry and industrial chemistry. However, the study of Yaowarase Jaiyen et al., (2007) showed an interesting survey research about chemical equilibrium of 125 high school students in Chantaburi. They found that a concept about disturbance of equilibrium by a change of a concentration was most difficult concept for those students. These might be because most chemistry concepts were abstract, so it was very difficult for students to understand concepts in microscopic level (Yaowarase Jaiyen et al., 2007). Up to this point, chemistry teachers should pay attention on encouraging the students’ understanding on abstract concepts using variety ways of teaching such as using pictures or models (Chatree Phychamta, 2008; Yaowarase Jaiyen et al., 2007)

Analogy is a process for comparing between two concepts, one is familiar concept (Analogue) and another one is scientific concept (Target) (Glynn, 1994; Treagust et al., 1998). This teaching strategy is emphasized on the analysis of similar and dissimilar attributes of analogy and target. The goal of this strategy is for understanding scientific conceptions by means of a familiar concept. (Treagust et al., 1998)
Analogy helps the students to understand complex and abstract concepts and develop their creativity based on students’ prior concepts. This process is called “conceptual change” (Venville & Treagust, 1996). However, analogy may cause alternative conceptions; therefore, the teachers should be aware of both similar and dissimilar attributes of analog and target (Harrison & Treagust, 2006).

There were many science educators who presented the way to use analogy in science classroom. For example, Treagust et al. (1998) suggested Focus Action Reflection Guide (FAR Guide) as a way for teachers who would like to use analogy in their class. The step of FAR Guide was showed in Figure 1.

Pre-Lesson FOCUS
CONCEPT Is the concept difficult, unfamiliar or abstract?
STUDENTS What ideas do the students already have about the concept?
EXPERIENCE What familiar experiences do students have that I can use?

In-Lesson ACTION
LIKES (mapping) Check student familiarity with the analog
Discuss ways in which the analog is like the target
Are the ideas surface features or deep relations?
UNLIKES (mapping) Discuss ways in which the analog is unlike the target

Post-Lesson REFLECTION
CONCLUSIONS Was the analogy clear and useful, or confusing
IMPROVEMENTS What changes are needed for the following lesson?
What changes are needed next times I using this analog?

Figure 1. The FAR guide or Focus-Action-Reflection approach for teaching with analogies (Treagust et al., 1998)

This study showed teaching and learning process in chemical equilibrium using analogy (FAR Guide) to help the students to understand the difficult and abstract concepts (Johnstone et al., 1977 sited in Raviolo & Garritz, 2008).

Research question
What are the students’ conceptions about disturbance of equilibrium by a change of a concentration after using analogy?

Research objective
To study the students’ conceptions about disturbance of equilibrium by a change of a concentration after using analogy

Research delimitation
The participants in this study are eleven Grade 11 students in a small school in Khon Kaen Province. Most of them had low achievement and negative attitude in science.

Research Methodology
This research is based on interpretive methodology. There were 12 hours chemical equilibrium lesson plans. The data was collected by pre and post concept survey, classroom observations, semi-structure interviews and students’ works analysis. All instruments were validated by science educators and try out with a group of students. The
study was took place during the 2\textsuperscript{nd} semester, academic year 2009. All teaching and learning processes were video and audio recorded. The data was analyzed by the researcher. The data from classroom observations and interview was transcribed verbatim. All students’ works were photocopied and analyzed. Students’ conceptions from pre and post concept survey and interviews were categorized into groups based on the similarity of students’ responses and their reasons.

\textbf{Research result and discussion}

When a chemical equilibrium system is disturbed by a change of a concentration, the system shifts in equilibrium composition in a way tend to balance this change of concentration. This change is based on Le Chatelier’s principle. The changing of color indicates a change of chemical equilibrium system. However, it is impossible to know the concentrations after adding or removing those substances. According to the learning activities, the target concept about a disturbance of chemical equilibrium by the changes of concentration is represented by an analog about the getting back in equilibrium of water volume.

\begin{table}[h]
\centering
\begin{tabular}{|l|l|l|}
\hline
\textbf{the changing of water equilibrium when change water volume} & \textbf{the changing of chemical equilibrium when change a concentration} \\
\hline
when a system of water volume is disturbed by removing water from vessel B, water in vessel A flow to vessel B until the water level in two vessels are equal. New water level is lower than a former one. On the other hand, if a system of water volume is disturbed by adding water from vessel B, water in vessel B flow & when a system in chemical equilibrium is disturbed by decreasing of concentration, the system shifts forward in a way that tends to counteract this change. At new equilibrium, reactants and products concentration are lower than a former equilibrium. On the other hand, if a system in chemical equilibrium is disturbed by increasing products’ concentration, the system shifts backward in a way that tends to counteract this change. At new equilibrium, reactants and products \\
\hline
\end{tabular}
\end{table}

\textbf{Figure 2} The water equilibrium change when adding or removing water

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure2}
\caption{The water equilibrium change when adding or removing water}
\end{figure}
the changing of water equilibrium when change water volume | the changing of chemical equilibrium when change a concentration
---|---
to vessel A until the water level in two vessels are equal. New water level is higher than a former one. | concentration are higher than a former equilibrium.

**Table 2** The analogy of the changing of water equilibrium when change water volume and the changing of chemical equilibrium when change a concentration

<table>
<thead>
<tr>
<th>the changing of water equilibrium when change water volume</th>
<th>analogy</th>
<th>the changing of chemical equilibrium when change a concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vessel A or B</td>
<td>Like</td>
<td>Reactant or product</td>
</tr>
<tr>
<td>Water volume in vessel A or B</td>
<td>Like</td>
<td>Concentration of reactant or product</td>
</tr>
<tr>
<td>Adding water to vessel A or B</td>
<td>Like</td>
<td>Increasing concentration of reactant or product</td>
</tr>
<tr>
<td>Removing water from vessel A or B</td>
<td>Like</td>
<td>Decreasing concentration of reactant or product</td>
</tr>
<tr>
<td>Water flows from vessel A to B</td>
<td>Like</td>
<td>The equilibrium shift forward</td>
</tr>
<tr>
<td>Water flows from vessel B to A</td>
<td>Like</td>
<td>The equilibrium shift backward</td>
</tr>
<tr>
<td>The system is not dynamic equilibrium</td>
<td>Unlike</td>
<td>The system is dynamic equilibrium</td>
</tr>
<tr>
<td>Pure substance</td>
<td>Unlike</td>
<td>Solution</td>
</tr>
</tbody>
</table>

**Research discussion**

During the learning process, most students explained that water flow from a high volume vessel to a low volume vessel. The equal volumes of two vessels bring the system to equilibrium. The students ignored that the different size of vessels can affect the outcome of the equilibrium. This group of students explained that system shift from high concentration to low concentration. This finding was concurrent with the study of Venvill and Treagust (2006). They claimed that unaware using analogy might lead to alternative conceptions. Moreover, some students explained that there was no change when the system shifts to equilibrium. This alternative conception also found in the study of Yaowarase Jaiyen et al., (2007). They suggested that this alternative conception might be occurred because the students did not understand about dynamic system. Additionally, some students hold alternative concepts about when adding more concentration for some substance can produce more concentration for other substances. This concept showed that most students did not understand the Le Chatelier's principle, so they could not explain the shifts of a system in chemical equilibrium when be disturbed. This finding showed simultaneous result with the study of Furio et al. (2000 sited in Yaowarase Jaiyen et al., (2007).
References


Resilient characteristics of Hong Kong kindergarten teachers: Hardiness and optimism

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ABSTRACT

While kindergarten teachers have shown resilience under adverse work environment, scarce empirical research has examined these teachers’ resilient protective factors, namely hardiness and optimism. The study had two aims. First, it examined the correlation relationships among variables of hardiness, optimism, self-esteem, and mental health complaints. Second, it testified the mediating effect of hardiness on optimism. In-service kindergarten teachers were invited to participate in the study as voluntary convenient samplings. They were asked to complete four inventories anonymously to enhance confidentiality and their willingness to participate. Eventually, 64 out of 104 teachers participated and returned the inventories. Results showed that both hardiness and optimism correlated positively with self-esteem but negatively with mental health complaints. While hardiness mediated the effects of optimism, teachers’ commitment (a subscale of hardiness scale) appeared to predict consistently their self-esteem and mental health complaints. Implications of rethinking optimism and promoting teachers’ resilience through hardiness training are discussed.

Keywords: resilience, kindergarten teachers, hardiness, optimism, mediator

Introduction

Studies have shown that teacher stress has been common in Hong Kong and overseas (Kyriacou, 2001; Hui & Chan, 1996). Extreme attempted suicidal incidents among teachers were reported (Chan, 1998). Yet, teachers have displayed individual differences in stress coping and the aftermath of stress (Kyriacou, 2001; Masten, 2001; Sumsion, 2004). As such, some teachers may elicit mental complaints, whereas some may remain mentally healthy.

Resilience is generally defined as adaptation to adverse conditions successfully with an exposure to threat and achievement of positive adaptation (Masten, 2001; McCubbin, 2001). Richardson (2002) proposed the “biopsychospiritual homeostasis” resiliency theory that indicates “there is a force (resilience) within everyone that drives them to seek self-actualization, altruism, wisdom, and harmony with a spiritual source of strength.” Kumpfer (1999) divides resilience into internal and external components. Internal resilience refers to optimism and hardiness, whereas external resilience refers to various forms of social support. Studies have indicated a positive relationship between resilience and health. Higher resilience promotes better recovery outcomes from coronary heart disease (Chan, Lai, & Wong, 2006) and protects young children and adolescents from social risks (Silva & Stanton, 1996).

Researching kindergarten teachers’ resilience is crucial both in Hong Kong and overseas because kindergarten teachers have encountered unfavourable work environment...
such as high staff turnovers internationally (Jorde-Bloom, 1986; Opper, 1992). More importantly, teachers’ resilient styles influence the ways children in developing their resilient characteristics (Brody & Baum, 2007). While Sumsion (2004) advocated that resilient kindergarten teachers exhibit strong job commitment in spite of the environment adversity, yet scarce research has studied kindergarten teachers’ specific resilient factors empirically. The present study focuses on examining teachers’ internal resilient factors, namely hardness and optimism.

While studies have shown hardness and optimism are similar in terms of its positive relationship with health outcomes and personality characteristics (Scheier, Weintraub, & Carver, 1986; Ramanaiah, 1999), both resilient factors differ in fundamental coping strategies (Maddi & Hightower, 1999). The question to follow is: To what extent hardness and optimism are related in contributing teachers’ mental health? To understand this hardness-optimism relationship, the study’s aims are two-fold. First, it examines the correlation relationships among teachers’ hardiness, optimism, self-esteem, and mental complaints. Second, it testifies the mediational effect of hardness on optimism.

**Hardiness and optimism**

Kobasa (1979) proposed that hardiness is a constellation of stress-resistant personality attributes including, (a) a tendency for Commitment (having a general sense of purpose to recognize one’s own strengths to tackle stress with endurance and find meanings in events and persons being interacted), (b) sense of Control (a sense of competency to interpret and appraise the stress as if one is influential in selecting the best option to cope with stress), and (c) Challenge disposition (believing that change is non-threatening and an incentive leading to positive growth). These three Cs of hardiness are interrelated (Kobasa, 1979; Kobasa Maddi, & Kahn, 1982). A study by Maddi and Hightower (1999) indicated that hardiness employed transformational coping such as active and non-avoidance strategies to cope with stress and associated negatively with avoidance (regressive) coping. As such, a person with high hardiness inclines to adopt a proactive approach in stress coping.

Plentiful studies have supported the relationship between hardiness and mental health. Hardiness positively predicted mental health in the aftermath of intensive training exercises (Bartone, 1989; Florian, Milkulincer, & Taubman, 1995) and healthy life styles (Weibe & McCallum, 1986). Manning, Williams, and Wolfe (1988) reported that people with high hardiness were more satisfied in their jobs, happier, physically, and mentally healthier than people with low hardiness. In educational settings, the hardiness characteristics have been shown to be an effective mediator of teacher alienation and high-hardy (high hardiness) teachers have less school alienation than low-hardy (low hardiness) teachers (Thomson & Wendt, 1995). High-hardy teachers have low levels of teachers’ burnout (Pierce & Molloy, 1990), higher levels of organizational commitment and sense of work mastery (Maddi & Kobasa, 1984).

Optimism refers to the general positive expectancy of good outcomes will happen (Scheier & Carver, 1987). Similar to hardiness, optimism mediates stress (Makikangas & Kinnunen, 2003) with fewer health problems (Scheier & Carver, 1987; Peterson, 2000) and faster rate of recovery from heart surgery (Scheier, Matthews, Owens, George, Lefebvre, & Abbott, 1989). While Scheier, Weintraub, and Carver (1986) asserted that optimism employed active and effective coping strategies including problem-solving
coping, positive reframing, and reality acceptance, optimism also linked with avoidance (Stanton & Snider, 1993) and positive denial coping styles (Lazarus, 1983). In fact, Maddi and Hightower (1999) investigated the differences between hardiness and optimism empirically and argued that optimism employed more passive coping strategies than hardiness. Unfortunately, very little research has studied both hardiness and optimism simultaneously in order to re-examine their overlapping relationships. The present study attempts to make such clarifications. It hypothesized that hardiness mediates the effects of optimism as hardiness is more active-coping than optimism (Maddi & Hightower, 1999). Another hypothesis is that both optimism and hardiness would associate significantly with teachers’ mental health (in terms of self-esteem and mental complaints).

Methodology
Research participants and design
In-service kindergarten teachers were invited to participate in this study as a voluntary convenience sample. They were part-time students of the Hong Kong Institute of Education. Those who agreed to participate were informed of the study’s purposes and their rights as participants. Teachers were asked to complete four questionnaires anonymously to enhance confidentiality and teachers’ willingness to participate. After completion, they needed to return those questionnaires into the researcher’s mailbox. Eventually, 64 out of 104 questionnaires were returned.

Instruments
The Hardiness Scale.
Based on Kobasa’s (1979) concepts of hardiness, Bartone, Ursano, Wright, and Ingraham (1989) developed the Hardiness Scale to assess military disaster assistance officers’ hardiness and demonstrated significant predictions of those officers’ health outcomes. The present research selects the shortened version (30 items) of the Hardiness Scale developed by Bartone et al (1989) and later translated by Chiu and Lee (2003). Internal consistency of the shortened version ranged from 0.56-0.82 for the subscales and the composite was 0.83. All items are equally distributed between positive and negative items. For instance, one positive item on commitment is “By working hard, you can always achieve your goals.”, a negative item on control is “I can’t do much to prevent it if someone wants to harm me.” All negative items require reverse scoring before further analysis. The present research selects the short form of the Hardiness Scale. To complete the test in the present research, participants are asked to rate on a 7-point scale (1=strongly disagree; 7=strongly agree) to replace the original 5-point scale. A more refined scaling was adopted to maximize the variance of the variables.

Revised Life Orientation Test (RLOT).
Scheier, Carver, and Bridges (1994) developed the Revised Life Orientation Test (RLOT) to measure optimism. RLOT is a 10-item self-administered test. Six (three positively and three negatively worded) out of ten items are used to measure optimism, whereas the remaining four are filler items. For example, one positively worded item is “Overall, I expect more good things to happen to me than bad.”, whilst a negatively worded item is “If something can go wrong, it will.”. The scoring format of RLOT
includes a 5-point scale ranging from 0 (strongly disagree) to 4 (strongly agree). All negatively worded items’ scores must be reversed (by subtracting the respondent scores on the item from the sum of the lowest and highest responses) before total scoring. A global optimism score was computed by aggregating scores of all six items. All items were translated using the back-translation procedure and put in the same order as the original. To complete the test in the present research, participants are asked to rate on a 7-point scale (1=strongly disagree; 7=strongly agree) to replace the original 5-point scale. A more refined scaling was adopted to maximize the variance of the variables.

The Rosenberg Self-Esteem Scale (RSES).

This scale was constructed by Rosenberg (1965) with an aim to measure the global self-esteem of an individual. It includes 10 statements, 5 positively worded and 5 negatively worded, under the format of a 4-point Likert scale ranging from strongly agree to strongly disagree. All items were translated using the back-translation procedure and put in the same order as the original. To complete the scale, participants are asked to rate on the 4-point Likert scale (1=strongly disagree; 4=strongly agree). All negatively worded items’ scores must be reversed (by subtracting the respondent scores on the item from the sum of the lowest and highest responses) before total scoring. A global self-esteem score was computed by aggregating score of all ten items.

The General Health Questionnaire-12 (GHQ-12).

Goldberg (1972) developed the 12-item version of GHQ-12 to measure the possible psychological malfunctioning and distress symptoms among nonpsychiatric patients in community settings. GHQ-12 is a self-administered test with four graded levels of ratings (1=strongly disagree; 4=strongly agree) and is the shortest version consisting of 12 symptoms or behaviours (e.g., lost much sleep over worry). The present research selects the translated version of GHQ-12 by Shek (1993). To complete the test, respondents are asked to rate on the 4-point Likert scale (1=strongly disagree; 4=strongly agree). A higher score indicate higher mental complaints from respondents.

Results

The majority 98% of teachers’ gender was female; 70% were married. The age ranged from 25 – 50, with 84% of respondents aged below 35. Regarding teachers’ school rank, 90% of respondents were class teachers.

Correlation Analyses

As shown in Table 1, the Cronbach’s alphas of the majority of instruments were above 0.65 that was an acceptable value as recommended by DeVellis (1991). However, the low consistency in the Challenge subscale may be due to inaccurate translations and / or cultural differences in interpreting the meaning of subscales’ items.

Both hardiness and optimism positively correlated with teachers’ self-esteem and negatively with GHQ-12 (mental complaints). In particular, self-esteem correlated with optimism (r=.51, p<.01), hardiness (r=.73, p<.01), commitment (r=.68, p<.01), control (r=.68, p<.01), and challenge (r=.24, p<.05). Moreover, GHQ-12 also correlated with optimism (r=-.31, p<.01), hardiness (r=-.49, p<.01), commitment (r=-.47, p<.01), control (r=-.37, p<.01), challenge (r=-.23, p<.05), and self-esteem (r=-.57, p<.01). Thus, the second hypothesis was accepted. While both hardiness and optimism also correlated
significantly with each other, only commitment (r=.62, p<.01) and control subscales (r=.54, p<.01) correlated with optimism.

Table 1. Inter-correlations and descriptive statistics of study variables

<table>
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<th>Variables</th>
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<td>Commitment⁺</td>
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<td>.85**</td>
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<td>Control⁺</td>
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<td>.86**</td>
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<td>Challenge⁺</td>
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<td>.62**</td>
<td>.54**</td>
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<td>-.49**</td>
<td>-.47**</td>
<td>-.37**</td>
<td>-.23*</td>
<td>-.31**</td>
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<tr>
<td>Mean (S.D.)</td>
<td>28.8</td>
<td>132.6</td>
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<td>47.4</td>
<td>38.3</td>
<td>28.5</td>
<td>25.3</td>
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<td>Cronbach’s alphas</td>
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<td>.25</td>
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</tbody>
</table>

** Correlation is significant at the 0.01 level (1-tailed).  * Correlation is significant at the 0.05 level (1-tailed)
+ hardiness subscale

Mediational Analyses

The steps in testing mediation are based on suggestions by Baron and Kenny (1986). As shown in Figure 1, optimism significantly predicted hardiness (regression equation 1: β=.62, p<.01) and GHQ-12 (regression equation 2: β=-.31, p<.05). When hardiness was entered into the regression model in predicting GHQ-12 (regression equation 3: β=-.49, p<.01), the relation between optimism and GHQ-12 (β=-.01, p>0.05) became insignificant. The change in β (from -.31 to -.01) inferred that hardiness showed mediational effect on the relationship between optimism and GHQ-12. Similarly, as shown in Figure 2, optimism significantly predicted hardiness (regression equation 1: β=.62, p<.01) and self-esteem (regression equation 2: β=.48, p<0.01). When hardiness was entered into the regression model in predicting self-esteem (regression equation 3: β=.69, p<0.01), the relation between optimism and self-esteem (β=.06, p>0.05) became insignificant. The change in β (from .48 to .06) suggested that hardiness also showed mediational effects on the relationship between optimism and self-esteem. In all, hardiness mediated the effect of optimism on self-esteem and GHQ-12. The first hypothesis was accepted.
Figure 1: Effects of hardiness on the relationship between optimism and GHQ-12

Note: All numeric are expressed in $\beta$. Regression of optimism on hardiness and GHQ-12 are numbers in normal text, whereas numbers in bold represent the regression of hardiness on GHQ-12 and in parentheses represent the resulting $\beta$ (after mediation).

** significant at $p<0.01$    * significant at $p<0.05$

Optimism $\rightarrow$ Hardiness $\rightarrow$ GHQ-12

-0.31* (-0.01)

-0.49**

-0.62**

Figure 2: Effects of hardiness on the relationship between optimism and self-esteem

Note: All numeric are expressed in $\beta$. Regression of optimism on hardiness and self-esteem are numbers in normal text, whereas numbers in bold represent the regression of hardiness on self-esteem and in parentheses represent the resulting $\beta$ (after mediation).

** significant at $p<0.01$    * significant at $p<0.05$

Optimism $\rightarrow$ Hardiness $\rightarrow$ Self-esteem

0.48** (0.06)

0.69**

0.62**

With an aim to illustrate the extent of meditational effects from different hardiness components, two multiple regressions were performed on all hardiness subscales and optimism simultaneously. As shown in Table 3, only commitment ($\beta$=.38, $p<0.01$) and control ($\beta$=.39, $p<0.01$) significantly predicted self-esteem ($F(4, 57)= 19.36, p<0.01, R^2$
=.57). Whereas in Table 4, only commitment (β= -.43, p<0.01) significantly predicted GHQ-12 ( F(4, 57)= 5.11, p<0.01, R² =.26). Overall, the commitment component in hardiness contributed consistently to self-esteem and GHQ-12.

Table 3. Results of regression analysis and Analysis of Variance for commitment, control, challenge, and optimism as predictors of self-esteem

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Beta Coefficients</th>
<th>Significance level</th>
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</thead>
<tbody>
<tr>
<td>Commitment</td>
<td>.38</td>
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<tr>
<td>Control</td>
<td>.39</td>
<td>.00</td>
</tr>
<tr>
<td>Challenge</td>
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<td>.46</td>
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<td>Optimism</td>
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<td>.63</td>
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<tr>
<td>ANOVA Results: F=19.36, df=4, 57, R²=.57, adjusted R²=.54</td>
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</table>

Table 4. Results of regression analysis and Analysis of Variance for commitment, control, challenge, and optimism as predictors of GHQ-12

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Beta Coefficients</th>
<th>Significance level</th>
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<tbody>
<tr>
<td>Commitment</td>
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<td>.67</td>
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<tr>
<td>Challenge</td>
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<td>.24</td>
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<tr>
<td>Optimism</td>
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<td>.96</td>
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<tr>
<td>ANOVA Results: F=5.11, df=4, 57, R²=.26, adjusted R²=.21</td>
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</table>

Discussions

The results indicated that both hardiness and optimism associated positively with self-esteem but negatively with GHQ-12 (mental complaints). While both hardiness and optimism correlated with each other, hardiness showed strong mediational effects on optimism. Specifically, the commitment component in hardiness exhibited consistent contributions to teachers’ self-esteem and mental complaints. In other words, the present study suggests that teachers’ commitment is an important resilient protective factor that leads to higher self-esteem but less mental complaints.

While both hardiness and optimism predict well teachers’ mental health (Scheier & Carver, 1992; Ramanaiah, 1999), the fact that hardiness is a potent mediator of optimism deserves further scrutiny of the conceptual differences between hardiness and optimism. Specifically, the commitment component in hardiness exhibited consistent contributions to teachers’ self-esteem and mental complaints. In other words, the present study suggests that teachers’ commitment is an important resilient protective factor that leads to higher self-esteem but less mental complaints.

While both hardiness and optimism predict well teachers’ mental health (Scheier & Carver, 1992; Ramanaiah, 1999), the fact that hardiness is a potent mediator of optimism deserves further scrutiny of the conceptual differences between hardiness and optimism. On the one hand, Scheier and Carver (1987) advocate that optimism as a general positive expectancy of good outcomes occurrences. They also indicate positive relationship between optimism and positive problem-solving strategies such as positive reinterpretation, but negative correlations with regressive coping such as denial. Moreover, Peterson (2000) reviews the concept of optimism involves denial of reality to active coping. On the other hand, Maddi and Hightower (1999) demonstrate that optimism tends to be avoidance (regressive) coping. Supporting Maddi and Hightower’s
results, the results of the present study strongly suggest that the resilient effect of optimism is due to hardiness as being the mediator. In this connection, it also supports optimism may exist in a continuum in terms of the hardiness level (Baron & Kenny, 1986). This also coincides with the extension of optimism into “big” and “small optimism” as proposed by Peterson (2000).

The concept of hardiness (including components of commitment, control, and challenge) matches the “Biopsychospiritual homeostasis” resiliency theory as proposed by Richardson (2002). To maintain the balance, a person needs to assign meaning to the job with his/her body, mind, and spiritual involvement. In other words, he/she is active to make choices for growth and ultimately oriented toward a homeostatic balance biopsychospiritually. Studies have shown that kindergarten teachers often treat their jobs as a calling characterized by strong job commitment attitude (Sumsion, 2004; Wong, 2000). Beside the teaching profession, Britt, Adler, and Bartone (2001) showed bus-drivers were more motivated when they assigned meaningful purposes (commitment) to their jobs. In this sense, the commitment component of hardiness may also be an important resilient factor that cut across other occupations too.

While developing children’s resilience has caught greater concern recently (e.g., Oswald, Johnson, & Howard, 2003), children usually model adults’ behaviour through the process of socialization (Khoshaba & Maddi, 1999). Hence, teachers’ coping styles are pivotal in affecting the ways children in developing their own resilient characteristics. Maddi (2005) asserts that teachers’ hardiness can be promoted through hardiness training. The present study informs that, the commitment component such as a sense of purpose and self recognition of own strength in doing the task well with endurance, may be one key ingredient to be embedded in the training curriculum.

While the present study is the first to examine Hong Kong kindergarten teachers’ resilience, it is a small scale study. However, the significant correlation relationships between resilient factors and outcome variables demonstrate good validity of this study. Therefore, the study’s findings are indicative of characteristics that may be evident across the kindergarten sector. For instance, the data in teachers’ self-esteem and mental complaints may serve as future baseline of teachers’ mental health research. In addition, mean score of kindergarten teachers’ self-esteem was slightly higher than previous Hong Kong research by Schmitt and Allik (2005). While the score discrepancy may be due to differences in research design and samples, being female may be another source of resilience (Werner & Smith, 1992). As the majority of teachers in the present study are predominantly female, they may show higher resilience. In this sense, it may warrant a larger study to compare male and female teachers on resilience.

References


Investigation of new style for Faculty Development in Higher Education

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ABSTRACT

In Japan, Faculty Development (FD) which means organizational efforts to improve methods or principles of higher education such as universities have been prevailing as a central tool for changing their one side (chalk and talk) instruction. However, in many cases, it causes a great deal of serious problems about “losing substance” in FD.

In this paper, as the first step in our improvement, we will begin our discussion by considering new challenging style that students take part in FD with university staff and professors. Specially, treating the case of FD in Ritsumeikan University, we will find the advantage and disadvantage of above new style.

Introduction

The importance of Faculty Development (FD) has become increasingly recognized amidst the transformation of Japan’s higher education from a “mass” to a “universal” structure since the 1980s. This importance was highlighted in the 1998 report of the University Council, after which FD became compulsory in 1999, and henceforth, became compulsory in Graduate Schools in 2007 and Faculties in 2008. As to what “FD” originally means, the Ministry of Education, Culture, Sports, Science & Technology gives a certain definition, which is “systematic training and research in order to improve the content and methods of classes,” while researchers may define it as group activities to cultivate the skills of university staff who carry the responsibility of reforming the curriculum and improving classes,” “the necessary improvement and development of the quality of the faculty so as to realize the ideals, objectives, and role of the university system.” However, from the viewpoint of actual practice, these definitions have not yet been clearly articulated, nor can it be said that they have become communal, because at present the content of FD depends on the discretion of the individual university. In 2009, the rate of those progressing to university had already surpassed 50%, and upon embracing this age wherein all shall enter university, the demands from society on a daily basis for a certain educational quality guarantee have grown stronger as represented by such terms as “academic competence.” In fact, considering its progression and deepening as well as practical application and management has already become an indispensable
issue for the higher education institution, there are major expectations and roles laid on FD. While various debates on and research into FD are already taking place among education institutions and researchers, the objective of this paper is to rethink approaches from a perspective not currently seeing discussion namely, “student participation in FD,” and report on the case study of an experimental approach at “a student participation-type FD” currently underway at Ritsumeikan University.

FD to date and problems

FD was originally a concept that emerged in the US in the 1970s resulting from the influence of social change relating to the popularization of higher education which created a pressing need for reform of the universities. This concept was introduced to Japan in the 1980s, and emerged through the first formal report of the University Council in 1998, as previously mentioned. In the period before and after this report, universities undertook various pioneering approaches. Representative of these were the interactive classes open to the public and the Deliberation Council seen at Kyoto University (1995-), the creation of a handbook for sharing class know-how at Nagoya University (2000-), and the start of the establishment of the “University Education Center” which is responsible for improving lessons and development at several universities during the same period.

The effect of these pioneering approaches and of making FD compulsory was that the ripples of FD spread, and in the year prior to becoming compulsory at the graduate school level in 2006, it was said that we had, “entered an age of localization from the enlightenment period.” However, on the other hand, within this process FD became “specialized” and “sophisticated,” and progressively became the domain of so-called “virtuosos.” Hence, an undeniable distinction was created between those mainstay universities and beyond that were comparatively passionate about FD and the other universities that did not have FD know-how or were unfamiliar to know-how circulating in other universities. Ultimately, these universities only produced a façade of FD that lacked content, resulting in the progression of a “formalized” and “fabricated” FD with no substance other than that of appearances in order to receive certification. Similarly, much of the “specialized” and “sophisticated” FD focused on improving teaching methods, in other words, on improving external factors whereby there was almost no incorporation whatsoever of the “student” as an independent entity. On this note, other commentators have indicated that, “if simplification prevails as the studies of learners are improved via
the improvement or removal of external factors, education carries with it the danger of becoming a universal theory consisting only of teaching methods that ignore the existence of students.” 10 As to what position “the student” should hold within universities was something already indicated in the 2001 Ministry of Education, Culture, Sports, Science & Technology Higher Education Agency Medical Curriculum “On Strategies for Enriching the Lives of Students at University (a report) – Towards the Creation of a University from the Student Standpoint” (Hironaka Report). More specifically, under the heading “a change in focus of from a staff- to a student-oriented university,” the report states “while it is frequently indicated that the concerns of university staff have primarily been with their own research and have not been sufficiently conscious of the education of students, in future it is important to attempt a shift from a general emphasis of staff research (a staff-oriented university) to the one involving painstaking education and supervision of diverse students (a student-oriented university). It can be said that though the systematic reforms and curriculum reform progressing within universities in recent years aim at the restructuring of education therein, in order to make this truly effective, education must progress from the viewpoint of the students doing the learning rather than simply based on a theory of education from the sole viewpoint of provision,” i.e., in order to realize a “student-oriented university” there must necessarily occur a shift in emphasis from an education where the role of staff is to conduct research and also for an FD to progress which does not simply exist for the sake of the staff collective but which also continues to consider the existence of students. As a strategy to achieve the above, the report states, “staff themselves must necessarily, first of all, be clearly aware that they are fundamentally responsible for providing adequate guidance to prompt independence and for nurturing students as persons within not only the formal curriculum but also in terms of their other aspects of life at the university,” and hints at the necessity for dialogue and cooperation with students. Amidst the enlightenment and progression of FD, and the contradictions that occur therein, attention is continuing to be drawn to the practical approaches towards “dialogue and cooperation with students” in order to realize a “student centered university” as indicated by the Hironaka Report. Now, we shall introduce some of those approaches.
FD at Ritsumeikan University

At Ritsumeikan University, the Ritsumeikan University Institute for Teaching and Learning for the Promotion of Educational Development is working together with the Continuing Education Support Center to promote FD. Characteristic of the FD at Ritsumeikan University is the way in which they have originally developed the currently widely accepted definition of FD, “systematic training and research in order to improve the content and methods of classes,” through a redefinition as “activities based on the spiritual legacy of the school’s foundation and ideals of education and learning in order to realize the ideals and educational objectives upheld by faculties, graduate schools, and other institutions of teaching and learning through the cooperation of academic and clerical staff with the participation of students regarding the appropriateness of the layout, content, methods, teaching materials, assessment, etc., of the curriculums and classes, while promoting systematic research and training, and continually verifying the adequacy and efficacy of such approaches to further improve and continue to make the most of same,” and have progressed FD activities based on this definition. Regarding the diversity of FD, as mentioned at the outset, there is no other definition that stipulates “student participation.” So, in what ways are students becoming involved in FD at Ritsumeikan University Those at the center of the cause are a student group called the “student FD staff.” The Student FD Staff is an organization formed at the request of the Educational Development & Support Center in 2006 wherein students work to better the education and classes at Ritsumeikan University. Examples of the specific content of activities therein include the introduction of distinctive classes being held both inside and outside of Ritsumeikan University and interviews with the instructors of the classes, councils open to application from all students that deliberate on the improvement of classes, office experience tours where general students accompany academic staff and visit research rooms or laboratories, FD forums held in various places and exchanges with other universities through participation in symposiums. Though this Student FD Staff belong to the Educational Development & Support Center which is the department in charge of FD, they are unable to receive the same treatment as University Councils such as the Class Improvement Council of Okayama University mentioned earlier, being ranked as one independent student activity body that has to date primarily assumed the role of “the enlightenment of FD from the students of Ritsumeikan University to the Students of Ritsumeikan University” rather than one of improving classes at Ritsumeikan University itself. However, recent years have seen a new approach by the name of the “Student FD...
Summit” wherein students and academic and clerical staff meet for an FD exchange. Through this Student FD Summit, students and academic and clerical staff discuss how to improve education and learning on the same themes around the same table, and thereby expand FD nationally. There are around 100 participants from 26 universities and a 50/50 balance of students and academic staff as per the initial objective. The summit takes place over two days, and the specific content is as follows: The focus on the first day is on discussion meetings called “mini-talk spaces” and “talk-spaces,” where first, students academic and clerical staff are mixed together into groups of around five people who then discuss one theme for 40 minutes in “mini-talk spaces.” Members and themes are changed three times, after which several themes from the “mini-talk space” discussions are selected to be discussed in greater detail, and all the students and academic and clerical staff are mixed among themselves again – just as before – though this time divided into groups of around ten people which then discuss for 80 minutes in “talk-spaces.” On the second day, after a representative from each group has reported on their previous day’s “talk-space,” participants are divided into groups of around ten as with the previous day, and use the whole day to perform and present on group-work based on the theme of “what we want to do, and what we can do at each university in the future.”

While similar Student FD Summits are held at universities across Japan such as Okayama University, above described discussions do not impose a lecture in the symposium, but rather emphasizes collective participation as independent persons responsible for the discussions therein at all times.

The Future for Student Participation-Type FD

Until this point we have discussed the problems with FD as well as examples of the types of student participation FD that have expanded to date such as the practice of FD at Okayama University wherein pioneering approaches are progressing as in the Class Improvement Committee and, albeit an emerging student participation-type of FD, the large-scale FD enlightenment approach put into effect by Ritsumeikan University. However, will student participation-type FD lead us to a resolution of the current problems with FD If we suppose that the problems with FD are “losing substance” and “fabrication,” and a stance whereby “every year the comments from nondescript class evaluation questionnaires are compiled into booklets, external lecturers are invited, and FD is promoted and evaluated through self-inspection assessments,” we can expect that
incorporating student participation-type FD, asking opinions of class questionnaires and of classes themselves, and incorporating exchanges with other universities will bring us a great deal closer to an FD of substance. However, universities originally inclined towards “losing substance” and “fabrication,” are mostly ones that are failing to construct a systematic FD, and while there is no project that assumes the role of a so-called “driving-force” 12 to improve education within universities, it is easily conceivable that the idea of a deeply rooted soil of student FD itself does not exist. However, that barren soil certainly still has potential, and it is both possible and necessary for universities that do have knowledge of student participation-type FD to share the ideals of the latter through assertive practice, the transmission of information and exchanges and thereby cultivate that soil, grow vegetation and make the flowers bloom. Furthermore, a student participation-type FD that embraces the three positions of students, and academic and clerical staff as a single body will mean that any one of those three can become the originator.

However, there is still a major problem here in that the idea of “FD” has not permeated to the core of the student body. Certainly, students such as those that make up the Ritsumeikan student FD staff and those that participate in the student FD summit who understand FD and are aware of the many issues. However, to many students, FD still means “floppy-disk,” which with the culmination of the USB memory-stick of recent years, many will not hear even once in the four years until graduation. Needless to say, students play a central role in student participation-type FD, and in the present, where a switch to “student-centered universities” is called for, we can say that all FD sees students playing that central part. If students are not concerned with FD, then “systemization” and “fabrication” will proceed unilaterally and the development of a student participation-type FD will be impossible. Investigating how to continue to enlighten general students on the idea of “FD” is the challenge of future research.

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Perspective of Case Method for Error Analysis in Prospective Teacher Training

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ABSTRACT

In this research, I primarily suggest to explore the increasing application of Case Methods for teacher training in mathematics education. The purposes of this paper are to investigate, (1) some issues of professional development of prospective teacher through the corresponding of misconception behind typical errors that student has, (2) enhancement of Case Method for development of constructive views in teachers mind. For these purposes, a questionnaire was conducted as a preliminary survey on 86 prospective teachers (undergraduate students). 4 examinees from that survey were then selected for interview survey.

The results indicated two main points: (a) Japanese prospective teachers would realize the overcoming approach to student’s misconception via Case Method, and (b) Case Method might be more helpful instrument to set teachers to recognize the constructive consideration.

Keywords: Case Method, prospective teacher training, misconception

Introduction

Although Case Method is one powerful teaching strategy to educate practitioners, there is little agreement on how teacher education is enriched by this method. Proverbially, the most controversial fields of Case Method are legal, medical, and business professions (cf.HBS, 2009). A few numbers of studies have been made on Case Method in the field of teacher education (e.g. Walen & Williams, 2000, Schifter & Riddle, 2004, Ohara, 2009). On the other hand, while pupils’ error analyses based on inquisition of misconception have been studied in the past few decades, the result of these researches is not fully reflected in teacher education (Aihui.et al.2009). This paper is intended as an investigation to care these situations. The purpose of this research is twofold: 1) to investigate some issues of professional development of prospective teacher through the corresponding of misconception behind pupil’s errors in calculation via Case Method, and 2) to verify the possibility of Case Method for development of constructive views in prospective teachers mind.

Methodology

The outline of investigation as follows;

Participants; 86 prospective elementary school teachers from undergraduate school (private university) were selected for this research. The reason why undergraduate students are selected as subjects is that they had no formal teaching experience without their private mathematics tutoring.
Data collection; Data were gathered in June 2010. Two types of data were collected:
(1) Questionnaire investigation; the questionnaire has two parts. Part A is to identify their belief about treating pupils’ errors to take care. Part B is the cases to check the interpretation, evaluation, and support for overcoming pupils’ misconceptions. Two cases were observed by participants, they were asked to respond in each case.
(2) Clinical interviews; after questionnaire investigation, some typical participants were interviewed, and the interviews were audio-recorded, and transcribed.

Material; In part A of questionnaire, there are six questions for their belief as follows;
Q1. There is pupils' logic behind their errors.
Q2. The pupils' errors should be immediately substituted for the correct one.
Q3. There are various causes of pupils' errors.
Q4. First of all, teachers should teach correctly so that pupils never stumble.
Q5. It is easy to find the pupils' errors.
Q6. Pupils' errors could become an opportunity which deepens their learning.
Odd-numbered questions are focus on the cause and finding their errors, and even-numbered are focus on dealing with their errors. The participants have four level choices; i) yes, ii) maybe yes, iii) maybe no, and iv) no.

In part B of questionnaire, there were two cases as shown table 1 and table 2. Each case described a situation in which the prospective teachers had to respond to naïve answer of elementary school pupils. Three features of cases used (Ohara, 2009) are as follows;
(a) Being problematic situations that need the decision-making as a responsible teacher.
(b) Being highly valued to essential matter about mathematics to become an expert early mathematics teacher.
(c) Keeping the reality of children’s mathematical conception in their classroom.

Then the participant was asked to interpret what the pupil might have had in mind, and describe how they would respond to the pupils as a primary mathematics teacher. The problem used in these two cases referred to famous book “Lapses in Mathematical Reasoning” (Bradis, et al, 1999)

Table 1. Case 1 in questionnaire

Case 1

Mana was a 5th grade pupil. She asked the checking of her calculation.

“Well, 4÷4=1 , and 5÷5=1
So , 4÷4=5÷5, 4(1÷1)=5(1÷1) , Divide 1 by 1 is 1.
Then, 4=5…… !? ”

Task 1
Choose one of the followings:
(a) Do you consider her calculation as advantageous?
(b) Do you want to make it the object of classroom discussion?
1-2. As an elementary school teacher, how would you respond to her?
Table 2. Case 2 in questionnaire

Case 2

Suppose you are teaching a 6th grade class (pupils about 12 years old). You are discussing about multiplication of mixed fraction. A student named Akio asked you:

“In addition of a mixed fraction, integers and fractions are added separately.”

For example,

\[
\frac{1}{2} + 2 \frac{1}{4} = (6 + 2) + \left( \frac{1}{2} + \frac{1}{4} \right) = 8 + \frac{3}{4} = 8 \frac{3}{4}
\]

Similarly, may I use this method in the case of multiplication?

\[
6 \frac{1}{2} \times 2 \frac{1}{4} = (6 \times 2) + \left( \frac{1}{2} \times \frac{1}{4} \right) = 12 + \frac{1}{8} = 12 \frac{1}{8}
\]

Task 2

Choose one of the followings:

(a) Do you consider his calculation as advantageous?
(b) Do you want to make it the object of classroom discussion?

2-2. As an elementary school teacher, how would you respond to him?

Results of Questionnaire Investigation

Results of Part A and Discussion

A summary of the response is shown in table 3.

Table 3. Result of question for their belief

<table>
<thead>
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<td>Q3(P)</td>
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<td>Q4(N)</td>
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<tr>
<td>Q5(N)</td>
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<td>Q6(P)</td>
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</table>

The major tendency in table 3 could be interpreted in two senses. Firstly, Japanese prospective teachers might think that there are various causes and pupils’ logic behind their errors, and not easy to find them.

This result basically shows desirable aspect of their belief. Secondly, prospective teachers would think that the errors are baggage in lesson, and if possible, we should eliminate them from the beginning. In professional development of primary mathematics teachers, these are the points to be specially considered for taking care of pupil’s errors.

Results of Part B and Discussion

A summary of the kinds of response is shown in the following tables.

Table 4. Result of task 1-1

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Table 5. Result of task 2-1

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<td>2-1(b)</td>
<td>22</td>
<td>64</td>
<td></td>
</tr>
</tbody>
</table>
It might be inferred from these responses to both tasks that although they accept the pupil’s special calculations, they might not wish to discuss these advanced topics.

Table 6 and Table 7 show various interpretations in two cases. Subjects were allowed to write down more than one answer in task 1-2, 2-2. Approximately, quarter part of prospective teachers could not do anything for Mana’s & Akio’s misconceptions behind their errors.

**Table 6. Result of task 1-2**

<table>
<thead>
<tr>
<th></th>
<th>To demonstrate the removing the parenthesis</th>
<th>To teach the key idea of fraction and division</th>
<th>To ask Mana check the deformation by distributive law</th>
<th>Blank (no response) and so forth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects (n=86)</td>
<td>34</td>
<td>56</td>
<td>14</td>
<td>21</td>
</tr>
</tbody>
</table>

(Multiple answers allowed)

**Table 7. Result of task 2-2**

<table>
<thead>
<tr>
<th></th>
<th>To encourage Akio to describe area diagram</th>
<th>To check his idea by solving the real world problem.</th>
<th>To ask Akio make sure the association in mixed fraction</th>
<th>Blank (no response) and so forth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects (n=86)</td>
<td>13</td>
<td>45</td>
<td>29</td>
<td>19</td>
</tr>
</tbody>
</table>

(Multiple answers allowed)

On the whole, it seems that most of them do not have confidence of treating of pupil’s special calculations. What needs to emphasized is slightly lack of awareness for pupil’s misconceptions behind these two cases. Since it is complicated to investigate each correspondence of the interpretation and supporting in each case, we referred to the result of task 1-1, 2-1. Analysis of tasks 1-1 and 2-1 were conducted in order to determine whether the difference among prospective teachers’ views was statistically significant.

**Table 8. Result of Task 1-1**

<table>
<thead>
<tr>
<th>(b) (a)</th>
<th>Using Mana’s error for discussion</th>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desirability of her conception</td>
<td>Positiv e</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
<td>1</td>
<td>66</td>
</tr>
</tbody>
</table>

**Table 9. Result of Task 2-1**

<table>
<thead>
<tr>
<th>(b) (a)</th>
<th>Using Akio’s error for discussion</th>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desirability of his conception</td>
<td>Positiv e</td>
<td>18</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
<td>4</td>
<td>51</td>
</tr>
</tbody>
</table>
According to the $\chi^2$ test for each results (table 8,9), the $\chi^2$ values were 21.92 in table 8, and 26.87 in table 9. The differences of views in both tables are statistically significant ($p<.01$). Indeed, we see immediately that the (negative, negative) categories in table 8, table 9, are larger than the other categories in each set of table. The result indicates that most prospective teachers tended to interpret negatively pupils’ errors, moreover they were compelled to disregard them in classroom discussion.

Although we have seen how rough insights into prospective teachers’ view were gained through their descriptions to two cases, the features of their comprehension are not fully known. Additionally, their responses might depend on their views of teaching and learning mathematics as well as on the cases in question. It is also essential to check into what was behind their descriptions and care for them. Therefore, we conducted a more qualitative consideration by clinical interview, and this is reported in the next section.

Outline of Clinical Interview

Interviews were conducted for the following purposes: 1) To follow up on prospective teachers’ conceptions in the questionnaire, and obtain direct information concerning their belief around pupil’s errors, 2) To care for their biased view of teaching and learning early mathematics, with special focus on the address to pupil’s errors. The four subjects were selected from the following reason. Result of task 1-1, 2-1 shows a possibility that participant who belongs to the (Negative (N), Negative (N)) or (Positive (P), Negative (N)) category might have some special persistence. Based on the above two items, the interview was conducted using a semi-structured interviewing method that proceeded flexibly according to the subject's reactions. Interviews are analyzed from two viewpoints: (a) the basis of interpretation and responses, and (b) how their views keep or change through discussions.

Results of Interview and Discussion

Since there is not enough space to give the results of all interviews, and the two subjects who selected are because of having been the same reply tendency as two subjects besides each. Particularly, we outline the two episodes of PT1 and PT2, who showed the most interesting tendencies.

About PT1 who belongs to the (N, N), when asked to explain the reason why did he not set Mana’s error the object of classroom discussion, PT1 said, “Because, might she forget how to close the parenthesis? …complicate…but it was not just mistake. This strange calculation is very technical so what is necessary is just to teach individually.” After checking the proper procedures on calculation in Case 1, he adjusts his approach for taking care of the distributive law. During the interview, his interpretation appeared most directly in the following dialogs.

<table>
<thead>
<tr>
<th>PT1:</th>
<th>In short, Mana does not understand the value of ratio and property of fraction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Int:</td>
<td>Yeah ….well, how do you care the confused calculations?</td>
</tr>
<tr>
<td>PT1:</td>
<td>So…maybe, I praise her as having noticed the interesting thing. Failure teaches success, ha-ha…. we should not disgrace her publicly…. but after praising, I might not treat this…in classroom because of technological issue…</td>
</tr>
</tbody>
</table>
In contrast, PT2 who belongs to the (P, N), in first half of interview, she emphasized that “A mistake is not mistake because it is unique.” After tutorial learning of distributive law, PT2 had started to think about the didactical implication of picking Akio’s idea. The following comment expresses the feature of PT2’s view on the meaning of taking care of pupil’s errors. These tendencies were often found in second half.

| Int : Would you tell me why do not you pick Akio’s procedure up in classroom? |
|--------------------------|------------------------------------------------------------------|
| PT2: …Akio used analogy from addition. We could not tell the word “analogy” for the pupils. |
| It is different between interesting and worthwhile in lesson. I mean step by step. |
| Int : After learning factorization in junior high school, his error has a merit to pick up. |
| PT2: Hum…indeed…. |
| Anyway, I think…. firstly pupils have to study the right algorithm in classroom. |

During the second half of clinical interview, accordingly, Contrast to PT1 who had tried to care the Akio’s overgeneralization about mixed fraction, PT2 did not get interested in the classification of pupil’s errors. Above dialogues describe how PT2 interpreted pupil’s error that was absolutely dreadful and should be weed out.

**Concluding remarks**

The purpose of this research is to investigate some issues of professional development of prospective teacher through the corresponding of misconception behind pupil’s errors in calculation via Case Method, and to verify the possibility of Case Method for development of constructive views in prospective teachers mind. From what has been discussed above, overall, we could get the following two main findings:

(a) Japanese prospective teachers would appreciate the value of overcoming pupil’s misconception via Case Method,
(b) Case Method might be more helpful instrument to set prospective teachers to recognize the constructive consideration.

According to constructivists, we should investigate more carefully into these findings because one of the crucial roles of primary school teachers is to facilitate pupils construct appreciated knowledge based on their preconception at different levels.

**Acknowledgements**

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References
Teaching the Internet Generation

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ABSTRACT

The advance of technology has opened the door to new ways of learning. Thai teenagers can watch a video of American teenagers on the popular website You Tube and connect with others around the globe. They use cell phones, blogs, live internet chat and communicate through personal websites such as Hi-5 or Facebook. Teaching from traditional textbooks does not keep this generation engaged or motivate them to learn. New teaching approaches are needed. This paper explores how simply modernizing everyday lessons, activities and student projects increases student motivation, engagement and performance.

Creating a vocabulary and listening activity based on the popular rock group Linkin Park had surprisingly good results. Students listened to a song by the group and filled in vocabulary blanks that were left in the lyrics. The meaning of each word was discussed as a follow up. The interesting thing about this activity was that the students, not the teachers, wanted to expand the lesson. They started asking about the meaning of certain phrases and the overall message of the song. Engaging the students’ interest allowed the lesson to grow and expand naturally from its original intention. Learning became fun and interesting.

A simple twist on a normal vocabulary lesson created a dynamic, positive and fun classroom environment with all students focused and ready to learn. This environment can be created every time by preparing material that relates to this new generation of students. The world has changed and it is time for the education system to follow suit.

Keywords: Internet, Creative, Soil Technology, Modern

Introduction

Teaching the current generation of students is a very different experience compared to generations past. The difference has been created by the advance of technology over the past decade. This advance has produced two major trends in students: It has shortened attention spans and expanded their ways of thinking. The majority of children and teenagers today are far more knowledgeable about the internet and technology than their elders. Students can watch videos on You Tube of their peers in countries all over the world. From this they learn about other cultures, ideas and ways of thinking. This has created a new generation that thinks much differently than their parents. This thinking has permeated everything from education to social values. In terms of education, it has produced a new breed of student that craves variety and relevance. Students today expect teachers to be modern and current in terms of their teaching methodology. A teacher seen as “old generation” tends to lose student interest and respect quickly. How can we approach teaching this new breed of students? How can we teach them while at the same time appealing to their interests?
As a foreign teacher in Thailand I have struggled in determining an effective way to engage internet generation students. As a volunteer at a high school in Udon Thani province, following old textbooks, ideas and materials created negative energy in my classrooms. Students were unmotivated and often unwilling to learn and study. After this initial setback I decided to experiment. Due to my volunteer position I had the freedom to use many different ideas for all grade levels. I noticed that students enjoyed being active and having variety in every lesson. If I stuck to one activity for one hour student interest faded. From this observation, I learned that the first step to creating a dynamic and positive classroom is to use a variety of approaches and provide many different opportunities for active learning.

The second observation was that students enjoyed using technology and learning about relevant material they could identify with. Teaching material can be made relevant by keeping up to date on current events and culture. Incorporating technology can be very challenging at times, especially when IT material in the classroom is limited or outdated. It often falls on the teacher to think of new and creative ways to intertwine technology into lessons.

This paper examines how using a variety of approaches and creating opportunities for active learning creates a dynamic and positive learning environment. It also explores how technology and relevant material can be mixed in to help appeal to this new generation of students.

**Maintaining Attention through Variety**

Teenagers today have limited attention spans and get bored quickly. This can wreak havoc for a teacher who is trying to create a good classroom environment. Many teachers stick to their old methods and as a result lose their students’ attention. The way to engage this new generation is through activity and variety. Changing presentation formats during lessons helps keep students engaged and focused. My students taught me that 2-3 changes within each lesson worked best. When I did more, they became confused. When I did less, they lost interest. Changing the activity or adding a new twist every 20-25 minutes was the best fit for my class. When I did this, students always wanted to know what was going to happen next.

One successful lesson using variety was on body parts. The first 15 minutes was spent on a fun warm up activity. The class was split into teams and one student from each team had to come to the board and draw a human head. One by one each team member had to run to the board and fill in the rest of the body. The next step was for students to label as many body parts as possible, again going one by one. After 10 minutes each team had to sit down. The team with the most correct body parts won the game. With this fun warm up the transition to the main part of the lesson was smooth.

Using a health website from the internet, a human body was displayed on the monitor for students to see. When you clicked on a certain body part it showed the name and a voice pronounced the word. After listening students were asked to repeat the word as a group. The follow up to this was a retention activity using the original teams from the warm-up. Using a laser pointer, different parts of the body were highlighted. The team
that recognized the part quickest and said it correctly was awarded a point. Bonus points were given if they could spell it correctly.

When you have variety it becomes easy to incorporate the 4 key elements of teaching into lessons; speaking, listening, reading and writing. The body parts lesson incorporated all these elements by using games and different visuals. The changes kept the students interested and engaged throughout the lesson. It also gave them multiple opportunities to learn and use the vocabulary in different ways.

Growing Lessons Naturally

One hour lessons are great, but teachers should also be prepared to teach longer units that expand student knowledge. This process begins with a basic foundation and grows naturally from that base. The manner and pace of development will vary from classroom to classroom. It is an interactive process where students demonstrate their readiness to proceed to the next step and teachers adjust their lessons based on student needs. The goal is to create solid momentum and flow to the unit. There is a simple format that can be used as a guideline for creating this foundation and natural expansion. For the purpose of clarity the topic of animals will be used as an example.

The introduction of a new topic or unit will set the tone for the coming weeks. Keeping this in mind, it is vital to make sure you engage student interest and explain things simply and clearly. Nothing is worse than talking for 20 minutes and having a classroom of confused students. The best way to start something is to create a fun game or activity that introduces the topic vocabulary. The game is fun for the students and helps teachers assess what students already know and need to learn.

For animals, a simple jeopardy game was used. (See Appendix A) This game created the basic vocabulary foundation for the next lesson. The categories for questions used the vocabulary students would need to describe animals. Students were learning the words they needed by simply playing the game. It was a lot of fun and kept the students actively engaged.

Extensions were added during the game to test student retention and focus. After students answered questions correctly, they were asked to draw a picture, spell the word or show the action. For example, when students answered the question “Is a cat big or small?” they were also asked to draw a picture of a cat on the board and spell the word “cat” correctly. This tested understanding, allowed students to learn about one item using a variety of methods and helped them remember what they learned.

After the jeopardy game students had basic vocabulary to talk about animals. The next step became expanding their knowledge and seeing how far they could be pushed. The second lesson incorporated the vocabulary and dialogue to be used for the upcoming activity. The first step was getting students to generate a list of animals in groups or teams. It began with the teacher telling a funny story about their favorite animal. When the class began shouting out animals they knew, this created the opportunity to get the lesson started. The students who spoke were asked to come and draw their animal on the board and write its name. If they were having trouble with the names other students could help. Drawing the pictures was fun and the students had a blast doing it.
From this base created by the students, the expansion of the vocabulary could now begin. Using the animals on the board, small sentences were created to describe each animal. Students enjoyed learning this new vocabulary because there was lots of variety. First, they were asked to demonstrate the meaning of words and act on commands. For example, when the teacher said “Show me swimming”, students would act out swimming. Later words were combined and students would demonstrate a fish swimming or a monkey eating a banana. Even when learning vocabulary, students want to be active and learn through many different methods. A teacher can cater to this need by adding little twists and changes, which helps with student retention and keeps lessons dynamic. In this scenario, teacher and students worked together to build the material from the grassroots up.

The next step was to create an activity that would incorporate what was learned from the previous classes. This activity allowed students to use the vocabulary they had built from the previous two lessons. It also incorporated a variety of skills and every person in the class was involved.

The goal was to combine everything together and get students creating their own body of work. In groups, students had to choose an animal. They were then asked to conduct research and create an information board. The research focused on the vocabulary from the past two lessons with some added twists and challenges. For example, students had to figure out if their animal was big or small or if it could swim or fly. A twist was giving students a map of the world and having them color the part of the world their animals came from. Photos were found using search engines on the internet such as Google.

Once the board was completed it was time to present. Every member in the group had to say at least 1 sentence about their animal. As a follow-up, the teacher asked questions to test student understanding. For example, the teacher would say “Sorry I forgot. What color is an elephant? Can you tell me?”

From a simple Jeopardy game to introduce basic animal vocabulary, students progressed to creating their own presentation about an animal of their choice. Given such opportunities students learn to use the vocabulary taught in a meaningful way that they will not forget. In essence, students are growing the seeds planted by their teacher.

**Using Technology**

Students love using technology because it’s such a big part of their everyday life. There are many different ways to use technology in the classroom. The following activities are a small example of some creative ways to mix teaching material and technology together. All of these activities can be used as starting points to begin a new unit, topic or area of focus.

*Camera Phone Craziness*
This activity was created when trying to figure out how to modify a traditional scavenger hunt. This is where you ask students to find a list of items. The majority of high school students have cell phones with built in cameras. This means the materials are already prepared for the lesson. The only thing that has to be created is a list. The class is divided into teams based on the size and skill level of the particular class. Low level classes should have a few large teams while higher level classes should have many small teams. Each team is given a list of items. Working as a team they have to take a photo of every item using their camera phone. The first team to complete the task and hand it in to the teacher is the winner.

This activity is very versatile because there are so many topics that can be selected. For example, students can be asked to take pictures of their friends showing different emotions or things such as a red motorcycle. Sports, colors, classroom items, clothing and household items are just a few of many other potential topics. When used as a starting point, it allows students to ease into the new topic comfortably. After the activity the more formal aspects of the unit can be started such as sentence formation and structure. This is also a very creative way to test students at the end of a unit instead of having them write a formal test at their desks.

**Surfing the Net**

The computer lab can also be used to create very interesting lessons. An internet scavenger hunt is a great way to engage students. In this activity, students have to answer questions by searching for the answers using the internet. Current events, sports, weather, entertainment and classifieds are all examples of potential topics.

It’s easy to lose focus with this activity and make things too broad. It’s important to keep a narrow vision when planning the lesson. For example, if you want to focus on sports you should tailor your lesson accordingly. Have students search sports websites for scores, statistics and opinions from journalists. The overall goal of your lesson will change according to the level of your students. If you have a low level class you can start by building on basic vocabulary used to describe sports. Students can be asked to find specific pictures or describe what they see in a sports photo from the internet. Intermediate students can be asked to find certain information like sports scores or the weather in a given location. Higher levels can be asked for their opinion about a certain article commenting about a game or athlete’s actions such as taking steroids.

If you want to extend this from one lesson you can assign a project. One simple project idea is to have students find a particular article. They have to describe who, what, when, where, why, how and present it to the rest of the class. A fun statistics project is to have students choose their favorite athlete. They have to create a biography of them with full statistics using Power Point or Microsoft Excel. As you can see, there are all sorts of options for expansion once you have the basic format.

**Messenger Madness**

MSN Messenger is a program used by almost all students today. This can be used to a teacher’s advantage. Instead of using a written quiz to gauge student levels at the
beginning of a term, evaluations can be conducted using this program. Students can be divided into groups of two or three. They are then asked to have a five minute conversation in English by messaging each other. After the activity each group prints their conversation and gives it to the teacher. The teacher can use these conversations to check the students’ level and correct grammar. The rest of the term and future lessons are now easier to plan because the conversations will be a great indicator of weak areas that need to be addressed and improved. It will also get students very excited about what to expect next time.

One great thing about MSN messenger is that it has the emoticons function. Emoticons are animated faces that can be used with normal typed dialogue while talking with other people. A simple test on emotions can be conducted by saying different emotions and having the student message the appropriate emoticon. This can be combined with the camera phone activity mentioned previously when teaching a unit on emotions.

MSN also lists the exact time messages are sent and there are many options regarding font color, size and background color. A fun listening activity can be created by having students follow a set of directions from the teacher. For example, the teacher can ask students to change their font color, size or send a message at exactly 10:37 am.

**Singing and Learning**

Teenagers love music and this can be used to create some great lessons. There are many variations to be considered based on the level of the class. Using music is a great way for a teacher to connect with their students. Showing an effort to cater to their needs will make students want to go that extra mile for their teacher.

A simple vocabulary lesson begins by the teacher eliciting from students what kind of music they like. From this the teacher can select a few songs. The lyrics of the song are given to each student with some blanks. Students listen to the song and fill in the missing vocabulary. After reviewing the vocabulary the lesson can be expanded by exploring the meaning of the song. Students can be asked to give a presentation about what they think the song means and if they enjoyed it.

If you want to make the activity more student based a project can be created. The guidelines are up to the discretion of the teachers, but here is an example to build on. Each student has to select their favorite song. Their task is to summarize the meaning of the song. Once they have done this they present their findings to the rest of the class. There are many different and creative ways for students to present their work. Students can use Power Point, a slideshow with photos or act out the story to explain the meaning of the song.

**Conclusion**

All of these activities can be altered and adapted to use all the different areas of learning. Speaking, reading, writing and listening can be incorporated all together or isolated individually depending on the teacher’s specific goal. For example, the song lesson can be specialized as a listening exercise by using the basic fill in the blanks
vocabulary format. It can be modified into the presentation format which makes students use all four areas. The same can be done for the camera phone activity by giving the list orally instead of through a written list. Students have to listen, communicate with each other, write the items down, read for understanding and then go and take the photos.

All of these lessons can be very high energy and students become excited at times. It is very important to remain focused on the goal of the lesson and keep control of students. This is achieved by explaining the format and process of the activity clearly from the beginning.

These activities along with the idea of building naturally from a strong base allow teachers to shape and mould their classroom. Traditional methods can be modified and adapted to create new and interesting lessons. Simple twists can add 10 minutes to simple games or activities. It falls on the teacher to think of the best way to do this. This is only a set of guidelines for teachers to apply when teaching their students. It is a skeleton and the meat, flesh and blood has to be infused by the teacher’s own thoughts, ideas and creativity.

The world is currently in a state of exponential growth and development. This growth has forever changed our world and how future generations will learn and develop. As teachers we must be knowledgeable about this and adapt to our ever changing surroundings. The overall goal will always remain constant; to make students better. The methods however, must be adapted and adjusted to the current situation. The current trend is calling for more technology, creativity and variety. As teachers, it is our responsibility to recognize this and use it to empower our students to move forward with confidence into this new world.

Appendix A: Step 1: Animal Jeopardy Game

Jeopardy is a question and answer game based on 5 categories. Teachers can choose any categories they like. Here is a sample jeopardy game on animals

The basic jeopardy board for students simply lists the categories and point levels so students can choose the category and point value they want. It can be written on the board. The Animal sample below was used with M1 students. The last category labeled “Special Items” asks about features unique to an animal such as tusks on an elephant or the scales on an alligator. This is how the animal jeopardy board looked for students.

<table>
<thead>
<tr>
<th>Big/Small</th>
<th>Color</th>
<th>Fast/Slow</th>
<th>Swim/Fly</th>
<th>Special Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>200</td>
<td>100</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>300</td>
<td>200</td>
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<td>400</td>
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<tr>
<td>500</td>
<td>400</td>
<td>500</td>
<td>500</td>
<td>500</td>
</tr>
</tbody>
</table>
The class is divided into teams and each team chooses their own team name. One by one each team picks a category and point value. The teacher asks the selected question. If students choose Big or Small for 100 the teacher asks; “Is an elephant big or small?” If students answer the question correctly they are awarded the points. Half points can be given for effort or close answers. This game can be made a lot of fun by adding 1000 points to the board as a twist after each team has had a few turns. Easy animals should be used for 100 points and the level of difficulty should increase to 500 with harder animals. Teachers may change the questions during the game if the students find them too easy or hard.

Sample Animal Jeopardy Questions for Teachers

**Big or Small**

100  Is an elephant big or small?
200  Is a cat big or small?
300  What s bigger, a dog or a tiger?
400  Is a fish big or small?
500  What is bigger, a penguin or a snake?

**Color**

100  What color is a frog?
200  What color is a lion?
300  How many colors does a panda bear have?
400  How many colors does a kangaroo have?
500  What color is a cheetah?

**Fast or Slow**

100  Is a turtle fast or slow?
200  Is a rabbit fast or slow?
300  Is a bird fast or slow?
400  What is faster, a snake or a dog?
500  What is faster, a cow or a pig?

**Swim or Fly**

100  Can fish swim?
200  Can a bird fly?
300  Can a snake swim?
400  Can a chicken fly?
500  Can a tiger swim or fly?

**Special Items**

100  Tell me one animal that has a tail
200  Tell me one animal that has claws
300 Tell me one animal that has horns
400 What animal has tusks and a trunk?
500 What animal has wings and a beak?

**Remember that teachers may have to adjust their questions depending on the level of the class**

Appendix B: Step 2: Vocabulary Building

For a quick review of the first class with a twist, write the same categories used in the jeopardy game on the board. Working in teams, have students fill in the categories with as many appropriate animals as they can. All animals will fit more than one category. A dog can be big or small and can swim. Some animals fit every category. A picture should accompany each animal for visual reinforcement. After completing the board, each student copies the vocabulary into their notebooks.

The expansion of this lesson depends on the teacher and level of the students. Power Point photos can be used to reinforce categories such as the size of animals, speed and special features. Simple grammar can be introduced to help students describe animals in sentences. *An elephant is big. Lions run fast*

Other topics can be mixed into the lesson as well. Geography can be incorporated by displaying a world map and showing students where certain animals come from. Food can be taught by dividing animals into meat or plant eaters. The internet can then be used to find pictures of animals eating their respective food such as a lion eating its prey.

Appendix C: Step 3; Animal Activity

In groups, students created and presented a poster board for an animal of their choice. These are the directions they were given.

---

Make a group of 4-5 people

Write your names / nicknames / class on a paper AND choose an animal

The Activity:

**Step 1** – Where does your animal come from? What does it eat?

A ______ comes from _______  
A _______ eats _______

**Step 2** – Big / Small, Color, Fast / Slow, Swim / Fly

A ______ is ______ (big/small, color, fast/slow)  
A ______ can / cannot _______ (swim/fly)
Step 3 – Think about 3 special items your animal has (Tail, wings, claws, trunk, fur etc.)

Step 4 – Poster board

Poster Board
- Get pictures of your animal from Google images
- Write information about your animal on the poster board (Step 1, 2 and 3)
- Decorate! Make it beautiful and lovely

Step 5 – Presentation – Everyone will speak!

Appendix C: Sample Camera Phone Scavenger Hunt

This photo hunt was designed specifically for the school I was teaching at. Certain items such as the dinosaur (16), canal (8) and fountain (13) were features unique to my school. Every school has special items that can add a fun twist to the activity.

Take a photo of:

1. A bicycle
2. A Buddha image
3. The flag of Thailand
4. A basketball court
5. The canteen / eating area
6. Two friends sitting on a motorcycle
7. A tree
8. A canal / river
9. Two friends, one with a happy face and the other with a scared face.
10. An M1 student in a yellow shirt
11. A Thai teacher
12. A pick-up truck
13. Three friends standing next to a fountain
14. One friend showing a broken heart
15. Two friends, one hot and one cold.
16. A dinosaur
17. A student playing on a computer
18. An MP4 player
19. A garden
20. Ice cream

** The first team to finish the list correctly wins. Good luck! **

Appendix D: Sample Song Activity

This is an example of a vocabulary lesson using popular music. The following sheet was given to students who had to listen to the song and fill in the blanks. After
listening three times students exchanged papers and checked their answers together as a class. Here is an example of the activity using the song Numb by Linkin Park.

**Linkin Park - Numb**

I'm tired of being what you _____ me to be
Feeling so faithless ____ under the surface
Don't know what you're expecting of me
Put under the pressure of ______ in your shoes
(Caught in the undertow just caught in the undertow)
Every step that I take is another ________ to you
(Caught in the undertow just caught in the undertow)

[Chorus]
I've become so ______ I can't feel you there
Become so tired so much more aware
I'm becoming this all I want to do
Is be ______ like me and be less like you

Can't you see that you're smothering me
Holding too tightly ______ to lose control
Cause everything that you thought I would be
Has ______ apart right in front of you
(Caught in the undertow just caught in the ________)
Every step that I take is another mistake to you
(Caught in the undertow just caught in the undertow)
And every ________ I waste is more than I can take

[Chorus]
I've become so numb I can't _____ you there
Become so tired so much more ______
I'm becoming this all I want to do
Is be more like me and be _____ like you

And I know
I may end up ______ too
But I know
You were just like me with ______ disappointed in you

[Chorus]
I've become so numb I can't feel you there
Become so ______ so much more aware
I'm becoming this all I want to do
Is be more like me and be _____ like you

[Chorus]
I've become so numb I can't feel you there
I'm tired of being what you want me to be
I've become so numb I can't feel you there
I'm tired of being what you want me to be
References


A Study of Instructional Management Result Using Information Technology Media for the Course of “History for Teachers”

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Ladda Silanoi
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ABSTRACT

This research aimed to 1) study the learning achievement affected by the implementation of information technology media for the course of “History for Teachers” and 2) study the opinion of first year students from Social Studies Program of the Faculty of Education, Khon Kaen University, during the academic year of 2008, toward the instructional management through information technology media for the course of “History for Teachers”. Target group was 44 first year students from Social Studies Program of the Faculty of Education, Khon Kaen University, studying in the second semester of the academic year of 2008.

Research findings were found that; refer to scores from sub-test during class and scores from learning achievement measurement of all students, 33 students or 75% of them could reach learning achievement scores higher than required criterion: 70% of students could reach learning achievement scores higher than 70%. Instructional activities based on teaching style of using information technology media was the activities in which matching to students’ need. As a result, they were interested and active to participating in activities. Practicing also enhanced them to form their own knowledge as well as the opportunity for developing skills and processes in exploring knowledge in order to think and solve problem using group process as an instrument. The interpersonal activities among classmates and teacher during the discussion for sharing knowledge and presenting each emergent issue were consequently took place. The pride and happiness in learning were also found. The emergent knowledge was implemented and adapted to situations in daily life as well.

1. Background and Significance of this Research

Nowadays, the advancement of information technology was increasingly found. It caused the fast change in social matter as well as economy, politics, culture and education. We could consequently attach to data and news including having an opportunity to get information through the fast system of sending message. No matter any events took place anywhere, it could immediately spread to know worldwide. This could form the open society for all nations to quickly learn and share with each other. It also influenced to members of society for living their lives through both positive and negative aspects especially children and youth who easily be attracted to recognizing new things. They were provided as much opportunity of learning data by getting through various types of information technology. The Act of National Education B.E.2542 valued the educational technology by focusing on educating students, as the national youth being, to get enough knowledge and skill of using technology to exploring knowledge through the concept of life-long learning themselves (Academic Department, B.E. 2540)
This condition could definitely and deeply affect to quality of children and youth as the key personnel resource of developing country. So the study of role of information technology in which influenced to learning of children and youth could be the significant issue to quickly process for finding out ways of promoting and determining policy of appropriate using an existing information technology for children and youth. It had to respond to the Act of National Education B.E.2542 on section 65 which stated that “To provide a development of personnel for both of producing and using sections on educational technology to be expertise in appropriate matter with quality and effectiveness”, section 66 stated that “To emphasize on educating learners through sufficient knowledge and skill in using educational technology for exploring knowledge through the concept of life-long learning themselves” and section 67 stated that “Government must promote the research and development of producing educational technology as well as monitoring, supervising and evaluating the implementation of educational technology to be worthwhile and appropriate to learning process of Thai people (Office of National Education Commission, B.E.2542. It also needed to respond to the policy of Ministry of Education in which focusing on developing learning process based on student-centered concept and promoting the usage of educational technology to develop education. Children and youth could be consequently taught to be qualitative learners in choosing data and information for worth learning and the ability of using it for developing quality of their life with happiness as well.

As the course code 234 114 entitled “History for Teachers” still found lacking of technology in its instructional media, researchers tried to find out ways and method of educating students the education technology for this field by studying this course. It also was the development of instructional management to attach the change to new age of educational management throughout the change of Thailand and global community. Students also could use this emergent knowledge as the basis for learning in other courses as well as adapting to facilitate their daily life.

2. Research Objectives

The purposes of this research were to study the instructional management result using information technology media for the Course of “History for Teachers” through particular objectives as follows:

2.1 to study the learning achievement affected by the implementation of information technology media for the course of “History for Teachers”

2.2 to study the opinion of the first year students from Social Studies Program of the Faculty of Education, Khon Kaen University, during the academic year of 2008, toward the instructional management through information technology media for the course of “History for Teachers”

3. Scope and Limitation of the Research

3.1 Target group: 44 students from the first year of Social Studies Program of the Faculty of Education, Khon Kaen University, studying in the second semester of the academic year of 2008.

3.2 Variables:

- Independent Variable: instructional management using information technology media
- Dependent Variable: learning achievement and opinion of students toward the instructional management through information technology media for the course of “History for Teachers”

3.3 Research Content was the course of “History for Teachers” in the topic of;

- Structure of Thai history during the Sukhothai period in political, administrative and social affairs
- Structure of Thai history during the Sukhothai period in art, cultural and economic affairs
- Structure of Thai history during the Krung Sri Ayudhaya period in political, administrative and social affairs
- Structure of Thai history during the Krung Sri Ayudhaya period in art, cultural and economic affairs
- Structure of Thai history during the Thonburi period in political, administrative, social, art, cultural and economic affairs
- Structure of Thai history during the first king and the third king of the Krung Rattanakosin period in political, administrative, social, art, cultural and economic affairs
- Structure of Thai history during the fourth king and the sixth king of the Krung Rattanakosin period in political, administrative, social, art, cultural and economic affairs
- Structure of Thai history during the seventh king and the ninth king of the Krung Rattanakosin period in political, administrative, social, art, cultural and economic affairs
- The comparison of Thai history structure between each period

3.4 Period of study: during the second semester of the academic year of 2008

3.5 Research location: Social Studies Program of the Faculty of Education, Khon Kaen University

4. Definition of Terms

4.1 Educational information technology media; refer to types of electronic media such as computer, VDO, television in which using for exploring knowledge, data and news.

4.2 Instructional management using information technology media; refer to the management of learning activities through the format of material and tools such as model, amplifier, television, DVD and VCD player. The presentation was then made by using computer, LCD Projector and data searching through internet.

4.3 Result of instructional management using information technology media; refer to learning achievement and opinion of students toward the instructional management through information technology media.

4.3.1 Learning achievement; refer to post-test scores of studying through information technology media. This could be measured by using subjective examination form created by researchers. The required criterion was 70% of all students could reach scores of learning achievement more than 70%.

4.4 Opinion toward the instructional management through information technology media for the course code 234 114 entitled “History for Teachers”; refer to the expression of students’ opinions concerning the studying through information technology media. Topic for expressing their opinion consisted of content, learners’ interest and the emergent benefits using the questionnaire created by researchers.
5. Expected Benefits
1. Students could form the knowledge, getting more knowledge and understanding by learning through advanced media.
2. Students learned from advanced information technology media.
3. The Department of Social Studies Program could have advanced instructional media for the course code 234 114 entitled “History for Teachers”
4. Being the guidelines for students and those who interested in instructional process to effectively develop their work.

6. Literature Review
To conducting this research, researchers studied related paper as follows;
1. The Act of National Education B.E. 2542 and information technology media
2. The course code 234 114 entitled “History for Teachers”
3. article, paper and document of information technology media
4. related researches

7. Research Design
Method of “one shot case study” was applied for conducting this research as the following detail:

<table>
<thead>
<tr>
<th>Research Method</th>
<th>X</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>refer to the management of instructional activities using information technology media for the course code 234 114 entitled “History for Teachers”</td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>refer to the post-test of instructional management using information technology media and a study of students’ opinion after studying through information technology media</td>
<td></td>
</tr>
</tbody>
</table>

8. Research Instruments
Instruments for conducting this research consisted of;
1. 15 hours of 9 lesson plans for the course code 234 114 entitled “History for Teachers”
2. 4 items of subjective examination form for measuring student learning achievement at the course code 234 114 entitled “History for Teachers”
3. questionnaire for exploring students’ opinion toward teaching using educational information technology throughout instructional activities

9. Data Collection
Detail of collecting data was as follows;
1. Researchers held the orientation for students to inform the process of instructional activities management using teaching method through information technology media.
2. Researchers conducted 15 hours teaching with target students according to 9 lesson plans.
3. After completed conducting the teaching through all lesson plans, students participated in examination for measuring learning achievement. The emergent scores were then analyzed before figuring out means, standard deviation and percentage in order to considering their learning achievement. At least 70% of all students were expected to reach more than 70% of scores. Moreover, they involved in completing the opinion questionnaires for reflecting the performance throughout lesson plan using information technology media.

10. Data Analysis
Researchers collected data for analysis in both qualitative and quantitative format as follows:
1) Qualitative data: data from student opinion questionnaires was took to analyze and summarize before reporting through descriptive format
2) Quantitative data: data from examination of measuring learning achievement was analyzed to figure out percentage and means before comparing to required criterion in which at least 70% of all students could reach more than 70% of scores.

11. Conclusion
Learning Achievement
The result of analyzing learning achievement scores for the course code 234 114 entitled “History for Teachers” after implementing the instructional activities management through information technology media was showed at the following table:

Table 3: Scores resulted from examination of measuring learning achievement of the first year students form Social Studies Program, Faculty of Education, Khon Kaen University in the academic year of 2008, toward the instructional management through information technology media for the course code 234 114 entitled “History for Teachers”

<table>
<thead>
<tr>
<th>Total Number of Students</th>
<th>Pass a criterion</th>
<th>Under a criterion</th>
<th>Learning achievement scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Students</td>
<td>%</td>
<td>Number of Students</td>
</tr>
<tr>
<td></td>
<td>44</td>
<td>33</td>
<td>11</td>
</tr>
</tbody>
</table>

Refer to table of learning achievement for 44 students above, it could explain that 33 students or 75% of them could reach learning achievement scores higher that required criterion in which at least 70% of all students could reach more than 70% of scores.

Students’ opinion toward management of instructional activities through information technology media
The management of instructional activities through information technology media was the activities which matched to students’ need. It could make them paying attention and be active in joining activities. Practicing by themselves could form their own
knowledge including the opportunity of developing skills and processes of exploring knowledge for thinking and solving problem using group process as an instrument. Interaction among friends and teachers were consequently took place for discussion and sharing knowledge as well as the presentation of what they explored. They could also be proud and happy in learning. The emergent knowledge could also be adapted to use in any situation in daily life.

12. Recommendation

12.1 General Recommendation

1) Activities should be organized for providing students the opportunity to practice themselves and all could be involved as much as they can. Students should implement skill and process in exploring, adapting and using knowledge. This could make them understand well and be better in learning.

2) The setting of friendly classroom will decrease the stress and anxiety in leaning and teaching.

3) The management of instructional activities needs to be focused on enhancing students to form new knowledge themselves and teachers just work as a consultant.

12.2 Recommendation for Further Research

1) The research and development of using educational technology media should be promoted to any other course.

2) The study of developing educational technology should be conducted for developing learners’ Multiple Intelligence.
Process of Sexual Harassment Against Women Teenagers Through Virtual Space Interaction*

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ABSTRACT

This research focuses on the violence is enable with communicate from new technology. Chat Room and E-Mail and Web Board on internet similar lead to danger location against teenage virtual space increasing interact to teenage. Thailand society receive globalization into family such as, structure of family become single family, father and mother have work for support survival of family and result of development of nation .Then Thai society in agriculture become industry. Objectives of this study; study process of sexual harassment against women teenage through virtual space The first step of research; interview teenage victim who used to communicate by internet such as, Chat so the victims fall to trust of anonymous and last them received sexual harassment. The result of study lead to plan policy from government for protect women teenage in Thailand to cope of communication with new technology, teenage have knowledge and protect themselves between powerful technology, organization have deep data for plan to study and solve problem.

Keywords: Sexual Harassment, Women Teenagers, Virtual Space Interaction

*A part of dissertation “Sexual Harassment Against Female Adolescents In Virtual Space Interaction” and Receive scholarship from Graduate School
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Introduction

Situation of adolescent sexual harassment is through virtual space and will be counted on the increase. The effect of capital development, according to the family is affected significantly. Family structure has changed. From extended family to become a nuclear family is a husband and wife alone together are likely higher. The environment and economic well-being of society involved in social capitalism more. To help families earn enough to spend your family. The conditions of most families experiencing problem, our international relationship that are not members of the family. Social progress and move into the modern media and technology innovation. Using media and technology has spread rapidly in the daily life of people of all age group.

Enable individual to access information and education and entertainment. Computer & Internet can be a part of society that people can use a purpose. In part, found that teens aged 15-24 have use the Internet more than any age group accounted for 50.4 percent and the rate of Internet use up to 36.5 percent (National Statistical Office, 2550) for adolescents with access to the Internet. The results showed that Teen can use to view pornographic cartoon pornographic Internet usage and behavior of the issues involved is sexual. School children. Spent playing online everyday 94.01 minutes and watched cartoons porno percentage 30.25 view pornographic percentage 39.27 and the Web sex occasionally or regularly percentage 27.23 (project monitoring situations children and young people by province, 2549), adolescents who use Internet. Are seeking sexual behavior on the Internet. Parent and secretly find sex (Porntip Pattananusorn, 2543; Nikom Lungsa, 2548) also found the Internet contains information on many The service has both graphics and sound. The adolescent or the user attention. Enjoyment and visual appeal. A search service from the World Wide Web in various styles. The communication of electronic mail(E-Mail) and communication through the discussion if Internet network services (Chat) (Jiracha Thoathong, 2542; Bandit Pongchay, 2543; Onuma Srisuttipan, 2543; Usapan Sripasertsakun, 2545) adolescents have access to the Internet and electronic mail, as a communications channel in a group of friend (Supakorn Predasuttichit, 2545; wannee jareansubyanan, 2545) information on the Internet like like a business, free trade create attractive to users. Information contained in the Internet content that is not appropriate to reflect the survey of sexual assault and prostitution. The pork and sexual partner change. Secretly taken picture of sexual intercourse between men and women topic discussion forum. Site features chat room.

So The Internet is a vast space and territory in the world of electronic, Conected network from around the world. Uniqueness of this area is fast borderless world without identity brief for smaller geographical borders. Teen makes access to information that is both useful news. Data and the risks that may lead young people to risk areas. The only deception and sexual threats. Overview of Thailand's criminal the victim throughout the Kingdom to inform the office of the National Police. Case called life Body and gender, such as fiscal year 2552 (October 2551-17 September 2552), who was also the 4155 rape case, which case life and body is not decreased. Finding people guilty or not guilty to arrest half of the victims f sexual violence. Arrest of offenders or only slightly more than half. And many cases of arrested offenders is not it. Statistical reports from the court case over. Have been victims of rape Total cases in the court of first instance civil court in the Bangkok and 1-9 from the Statistical Journal of the victims in the three years 2549 to 2551 were female, 12,034 people, including cases of sexual temptation is through virtual space in adolescents with (Office of the Judiciary, 2551) which will be more days. To
interact with people in a society that has many and varied are several grounds that incentives to persuade teenagers to violence. Non-violent people appear But the violence of those who lurk in online communication via the computer in virtual space.

The research is to study the process of female adolescents is sexual harassment through the virtual space. It is expected that the findings will be useful to agencies involved in development of adolescent girls. Use the information or new knowledge to support the planning mechanism measures. Prevention of sexual harassment is. And reduce violence against young women have

**Purpose of research**

To study the process of female adolescents are sexual harassment through virtual space.

**Concepts, theories and paradigms of research**

The researcher reviewed the concept. Theory used in this study is the concept of sexual harassment of Urie Bronfenbrenner (Rice & Dolgin, 2008) in combining the ecological model (Ecological. Model) under the influence of social To describe sexual violence according to a comprehensive World Health Organization thought to explain phenomena of sexual abuse or sexual violence. But the factors that interact in a complex (Complex Interaction) include 1) the influence of individual level (Individual - Level Influences) 2) levels of interpersonal influence. (Interpersonal Relationship - Level Influences) 3) level of influence of the community (Community - Level Influences) and 4) level of influence of social structure (Social - Level Influences) and the concept of Finkelhor (Rice & Dolgin 2008) to analyze the condition factor Finkelhor's 4 Preconditions Model analysis of family factors, cultural and social factors. That are associated with sexual violence continue.

The study also reviewed the concept virtual space. The channels of communication through chat room (Chat Room) Forum comments (Web Board) Office Electronics, Inc. (E-Mail) in virtual places have spread content that is not appropriate inappropriate the spread of inappropriate content occurs in children and adolescents is easily 25 percent of adolescents in the United States. Porn site search and 20 percent have been attracting Sexual motivation (Rice & Dolgin, 2008) virtual space with a variety of multimedia features (Multi Media) that can be created from magazine photos of paintings from the images created. Both speed Channel to communicate conveniently. Imagination to express freely. Therefore, the content are both text. Lovely pictures, even pornographic. This story has everything in the world the best and worst. As such, the vast space and enormous amount of content. And people who visit Vienna visit to the area around the virtual world. UK is one of the general society. The channel of sexual harassment in adolescents is not difficult.

In addition, the study also reviewed a few key concepts Â concern with education. The concept of trust. Concepts of adolescent And concepts as social structure. Luhmann (2000), meaning that refers to the situation of the specific problems of risk. Trust refers to what is expected, which might make a mistake. Failure to move into disappointment.
Trust is more than content of the daily routine and normal behavior. In the case of trust due consideration in mind and considering the end of regret later. Development of trust and mistrust based on environmental, social and personal experience with the intelligence Nanthakan Wongpanya (2542 claims from Rempel et al, 1985) provides definitions of trust. The relevant conversations three things big, including 1) evaluation of speaker as the trusted and predictable, 2) the belief that the conversations attention to the needs of themselves and reliability. Stay 3) the feel of a close relationship. In the trust may be a reason for people to trust or not trust the person is likely. Today teens amid growing trend of consumerism that comes with modernity. And globalization of adolescents living is a way of life of individuals. The adolescent age is the change in their every aspect, as Adams and Others (1994) defines the youth that means. Those in the age range 13-19 years, or about the class divide.

Structural power to control and organize gender in society. The sex is not just "private" in the society only. But is also makes it "public" through the control and supervision by various institutions. State, such as family, school and society to sexuality can be explained under the social structure and culture.

Therefore, the youth in traditional social interaction each other based on the same page (Face - to - Face) which appeared in the physical space. Later on social complexity and expands the space and time fast. And how to communicate with electronic, has brought more new interactions. Cause relationships through multiple virtual places such as From the discussion in the chat room (Chat Room) Forum comments (Web Board) of the Postal Electronics., (E-Mail) to interact on a virtual performs with adolescents of the people. is associated with trust. If the virtual space to communicate with teenagers the opportunity to build relationships that are fraudulent. Teen has potential risks. Start from harassment sexual verbal / visual (Verbal / Vitual Harassment) and adolescent girls are at risk from the appointment and threatened sexual physical (Physical Harassment) of teenage girls get behavior from the threat of sex from exposure (Light & Doucet, 1995). While families need to work with the current economy and capitalism. Parents do not play a role in providing care and assistance as required to work outside the home. Including parents, without good relationships with clients. Teen makes the risk of using more virtual space. With the young, their own behavior. Association with friends. Obedient friend away from their parents. The risk factors in virtual space related activities such as meeting place of each meeting. Lack of friends and parents in care Knowledge about sex is less. Including the background of the parents. If the family division. Parents parting Family relationship is not good The role of parents. And young people rely on virtual conversations in the area then. Opportunity for teens to be sexual harassment is very high. Space of the family is an opportunity to influence conversations enticing threats and sexual harassment through the virtual space. Planned that this
CONCEPTUAL FRAMEWORK

**Independent Variable**

**Factor of personal Individual**
- Living family of women teenage
- Closeness with parent
- Peer influences
- Behavior of women teenage from hetero friends

**Factor of family**
- Family structure
- Parent background
- Parent role to suggest women teenage
- Family relationship

**Factor of structure social**
- Gender of power
- Gender inequality

**Dependent Variable**

**Sexual Harassment through virtual space**
- Sexual harassment on verbal/virtual harassment in 9 issues
- Sexual harassment on physical harassment in 6 issues

**Virtual space**
1. Alternative of virtual space
2. Trust on virtual space
3. Period of relationship development in virtual space

**Methodology.**

This research is a survey (Survey Research) of the Qualitative Research (Quantitative Research) and quantitative research (Quantitative Research) in Khon Kaen province in the article by this study provides only qualitative results.

Target of this study were 1) a female adolescents aged 15-18 years in two school systems) interact with the threats through the virtual space. 3) Sexual harassment is verbal / visual. Sexual and physical threats 4) Save the report with local police or notify the Khon Kaen province since 2549 BC - 2552 BC. Data collection. Data collection was conducted during June - July 2553 by way of interviews (Interview Guideline) for in-depth interviews with the objective of the study group of 10 people.
The inspection tool, the research was conducted to verify the accuracy and reliability of qualitative data through interviews done with children and adolescents a variety of women. Documented in the field and creating an inductive conclusion. Including checking the documents and consult advisors. Experts in related fields is correctly oriented content. To ensure that the information is accurate and reliable. Then check the quality of an interview approach to data analysis method triangle by using various data collection methods include observation, interviews a different time. Asking the same question that was asked of.

Issues of interview the researcher asked the issues include:

1. Channels of virtual places. Features virtual space. Interested in a virtual space to communicate with guests.
2. The risk of adolescent female sexuality in virtual space.
3. How the guests use to threaten adolescent girls trick.
4. Trust in the virtual space.
5. From time to develop relationships in virtual space. The result of the adolescent female victims of stranger.
6. Elements of a process that is sexual harassment, such as characteristics of female adolescents living.

In addition to data collected by in-depth interviews and observations to use to get the information together with the most accuracy. Data analysis. In this study the qualitative data from the primary data areas used to categorize information according to issues and content analysis.

Results and discussion

Parental notification cases add to Sue (the police to record Attorney decision to sue). Litigation settlement from one virtual space. Teenage girls in virtual space alone. Parents, most have no knowledge of the virtual places (7 persons), the parents who have knowledge (3 persons) using virtual places, but does not control balls to use as female adolescents, most (8 persons) is hosted by Virtual Internet Shop. Teenage girls and channels to use the most in the chat room (Chat Room) (8 persons ) from the area Forum Opinion (Web Board) (number 1) and from the area of postal Electronics, Inc. (E-Mail). (number 1).

The interview focus. The reason for the conversation in a chat room (Chat Room) and / or use of space Forum Opinion (Web Board) and / or use of the area of postal Electronics, Inc. (E-Mail) found that female adolescents. Most (7 persons) is used to find Friends. Find Friends release for lonely teenage female fans (3 persons) use to modern use by friends.

The known and adolescent girls to Thailand after known within three weeks the most (6 persons) known a month ago to Phone (3 persons) known two months ago to Phone (number 1) which Teenage girls all the phone using a personal best (8 persons), the phone used in conjunction with parents is a minority (2 persons) when the speaker is No. discussions in virtual places less which changed the phone To build a firmer relationship. From time to develop relationships in virtual space from the known. The telephone. And
meeting each other in time two months most (of four people) in the period 3 months (2 persons) in the period a month (2 persons) Duration 2 weeks (2 persons), the interlocutor in the region. Watch a virtual chat room based in. And wait to be greeted by a conversation only female adolescents. Put influence using talk show sincerity and find personal information about adolescent girls. Why most female adolescents meeting I found most of the page To see the real (of nine people) and want to try meeting to meet the Internet (number 1)

Conversations have a way of meeting the teenage girls on a real Victims of sexual harassment and be it Where conversations appointments is the province of teenage girls and live conversations. Or a school and housing. (Khon Kaen), most (6 persons) Teen Girls go dating chat (3 Persons) Twin teenage girls come to talk (number1)

Teenage girls were the sexual harassment. To inform parents of five cases add two cases to sue the two cases customers do not agree to cooperate in the prosecution case and an appointment to see conversations again. The parents do not notice Because parents do not know of 3 people (female adolescents living in the dormitory of People Living with two parents, parents of a shy person and a child were requested not to inform friends of a shy person.

The results of such research is to discuss the results. To verify the process of sexual harassment that occurs through the virtual space. To study the quantitative research in the following steps:

1. Virtual terrain. Virtual terrain conducive to the expression of sex According to the study of Janet (2005), space hypocritical society: a survey of interaction in a chat room website Education under the new Instrument Web Chat (Web Chat Room) documents a variety of media. Risk of emotional conversation and observation in virtual space. Found that with modern convenience and virtual places are conducive to the discussion on building relationships quickly The link to the meeting together in real space. Communicate to speak with a written message to mimic Discussions in virtual space is the place to discuss players. At the same time a conversation is talking about sex is involved is a way of talking to one person for sexual harassment in virtual space and find a show to show off body Penis handsome new web chat. And a group of people chatting on the web like handsome new look at what these pornographic. This demonstrates the area of sexual expression. This is consistent with the study of Doring (2009) in the sexual area showed that the online offering pornography. (Pornography) is a sexual contact area (Sex Contact) and cumulative area of sexual sub-culture (Sexual Subcultures) and other forms of Internet has demonstrated explicit sexual. Which is related to sexual activity online to become a normal expectation that soon won not shall extend in width to each hemisphere. The Internet to meet sexual well-being based on age, gender and sexual orientation of individuals who Doring emphasized that things are not good. Which may conflict with those who study in the benefits of the Internet. Therefore, the virtual space into a preliminary risk for sexual exposure to become accustomed to and have relationships with people in virtual places.

2. Women in the virtual space. Virtual local women are targets of threats and deception to engage in sexual intercourse According to the study of Harring (2001); Subrahmanyan, Smahel, and Greenfield (2006) in a study of the online interaction was that Men will find out how women like Falling involuntarily Women and men on the Internet is a target of the threat of force. Threats and deception. If a group known as chat rooms and men are trying to get to know and ask specifically to talk to women alone. And
opportunities to have sex. From the observation in the discussion found. Men talk about
sex a subject for a minute using indecent language. Or obscene talk about every two
minutes a woman of identity as a woman rather than communication about sex as men are
concerned about sex in a production of virtual communication in
Many areas.

3. How to entice the virtual space. People will be tempted to encourage the trust to
conform with Works and smooth in virtual space. And express their goals in the sexual
encounter on a real Consistent with the level dissertation research abroad (1997) studied
the number of children who use online with a lot. By the year 1997. A child of about 10
million people used online. Predators are connected to the Internet these children. Into the
chat room by choosing a children's chat rooms and web site for children. Who do have
children in contact online and attracting the sexual conversations. Or send pornography to
children. And find ways for children to meet in real space for the purpose child sexual
exploitation in those

How the offender is made. Once known as chat rooms and then. They can open a
private chat room quickly. Talking to a private Millions of children online is a passion in
the area of web chat rooms. They talked for hours. The United States since 1997, has a
chat room area of 400 public chat room is the most widely used family of America
Online. Especially in the afternoons after school time to quit. People to talk about sexual
topics and have a lot of inappropriate content.Violent sexual offender to find children who
are victims of chat rooms with interesting topics for teenagers. Who do have influence
over the membership to new With the deceptive appeal process in discussion A
conversation with personalized content and do a lot more confidence and trust. A way that
increases trust and credibility to entice children to experience the passion and be easy to
beat children. The child trust. Often the offender will return to chat every day until
collected. Accumulate enough information about children. Create interest for the child to
talk about sex. Send pornographic images of children. Child pornographic images,
including the children believe that other children have sexual activity.

This is consistent with the Mishna, Saini, and Solomom (2009) has studied the
circumstances of children and young people online have been ill in the virtual space. A
student of grade five and grade eight of 38 people who have problems communicating
with strangers were correlated with five of the online technology, technology has spread
to children and teenagers become obsessed children. The annoyance in cyberspace.
Effects of cyber identity. Types of Cyber Bullying in. And tell the adults to recognize and
communicate in the cyber. In addition, the complexity of cyber strangers to affect the
threats. Should more carefully to children and youth to interact in the online.

4. Trust in the virtual space. It is a danger that the threat is most serious. Talk of
the virtual space, which leads to meeting each other and lead to a premature sex. Cause
many children to lose it interacted in a virtual space. The motive for the conversation to
the network mostly To believe everything in line with Waraporn Tragoonsarit &
Tippawan Napawong Na Ayudhya (2549) studied the conversation about sex through the
network (Sex Chat) is a threat to cause disadvantage to people who know. Not dangerous
tricks. And according to the study of Ben-Ze've (2003) in regard to privacy (Privacy) of
close intimacy (Emotion closeness) and open was found to be closely associated with
intimate frankness and the desire of being in a relationship. The feeling has lost close to
the privacy and the level of privacy is emotional feeling close But communication in
virtual space is important to disclose the threat to privacy, and will cause a threat. With
people who do not know the area of virtual. Therefore, the privacy will be two of relationship is a personal relationship with emotional commitment. To have close contact with strangers is dangerous because the type of emotional value. The relationships in virtual places become a closer all the more meaningful communication. Moreover, no limitations in virtual space. Knowing a fact. Know that the phone number. Photo sharing with each other. Write a letter to each other and meeting face Conflict between the emotional intimacy and privacy will happen again. Things should be aware is. Privacy becomes a complex relationship is not limited in the virtual space. Can meet the meeting. When the appointment would meet a range of disclosure and privacy. Virtual space is an area with a lot of freedom and privacy seamless.

5. The victim in the virtual space. The victim of a stranger making affecting the lifestyle. According to the study of Southern (2008) found that victims of stranger Having sexual relationships over the Internet is affecting the pain hurt Which threatened the victim with Pina,Gannon, & Saunders(2009) has studies sexual harassment in the past 30 year period found that the phenomenon of sexual harassment. Should understand the state of society is sexual harassment to avoid it. The studies suggested that the relationship between subjective threat.

Conclusion and recommendations

Teenage girls with access to virtual places alone. Also, if parents have no knowledge, and lack of supervision of teenage girls in the virtual space and then. Opportunity to be tempted to influence sexual harassment is high. Talking with the virtual space is an area that expression close when the speaker came to talk with a gentle mood. Show kindness the never known before. If the lack of care. Spit and measured. Therefore the threat of sexual interaction through virtual space.

Teenage girls to the telephone conversations with further increase intimacy between speaker the phone can be used to coordinate the relationship increases. Telephone conversations is a tool used to persuade to speak out and meeting real threat in the region next

Teenage girls in the family, which is sexual harassment. It is the notification of family litigation or proceedings to inform the speaker the story of the teenage girls listening to their parents or their parents know. Parents are to notify the prosecution to the interlocutor The teenage girls are not living with parents or parental shy. Teenage girls or shy. Notification will not occur.

Recommendations from research. Suggestions academic

Families to educate and care for the well-being of every child in building relationships and family warmth is needed in social globalization Moreover, parents should have the opportunity to care Surveillance of children using the Internet. If communication with friends in virtual space with disorders will help track and resolve threats to the sex of the child.
Recommendations and policy development

The research suggests two issues: 1) the protection of the basic family of the teenage girls are very important to guide the lives of the children properly. Moreover, agencies responsible for education, family and social development. Policies should encourage female adolescents. The value of their own. Love All the Manual. And male adolescents are encouraged to be men. Not exploit women in the sex 2) the promotion of the issue and fix the first problem in education. Should be to educate the family Teen members of the family. To make the family closer together. Members have the time and care to the warmth of their families. The second point. Maturity of adolescents. Makes sense to learn and live error failed families, some of neglecting to act as parents, so agencies involved in family, society should have a project or activity that encourages teen girls aware of the role of self together. to be trained to care of their parents.

Recommendations on next research

For research in the future. Should be in-depth study of the problem situation in a Single parent families teenage girls following.

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Conceptions of Giftedness: A Qualitative Study with Hong Kong Parents of Young Children

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ABSTRACT

A significant feature in the Chinese literature concerning giftedness is a de-emphasis on natural ability and an emphasis on the impact of nurturing and learning. Through a qualitative approach, this project explores Hong Kong Chinese parents’ understandings and beliefs of giftedness, and their expected parental behaviours with their children. Thirty-two Hong Kong parents of young children are interviewed to examine their understandings of giftedness, and both qualitative and quantitative analyses are employed. The research findings offer insight to parents, educators and policy makers on the education of gifted and talented young children.

This research project is the first of a three-phase longitudinal study that has the broad aim of uncovering the relationship between young parents’ conceptions of giftedness toward the education of gifted children, and their subsequent behaviours in the education of their children. In this phase of the project, the specific aims are to determine the conceptions of giftedness among Hong Kong Chinese parents, and their parenting behaviour and practices in relation to their children’s education – given the possibility that their child may be identified (or labelled) as “gifted”.

Total of thirty-two semi-structured interviews are conducted with Hong Kong Chinese parents of children age 3-6 years old. This approach will be repeated in the subsequent two phases of the project to uncover any changes in their conceptions, and to characterize their actual behaviours in relations to their child’s education.

Against the recent intense public interest in a small number of gifted children in Hong Kong, the findings of the first phase of this project will contribute to our basic understanding of the cultural basis of conceptions of giftedness, help shape future policy initiatives of the Hong Kong government. In the first and subsequent phases of the project, findings are also expected to provide specific advice to schools on how to implement these initiatives, particularly in relation to the communication and involvement of parents in the education of gifted children.

Keywords: Gifted education, giftedness, parenting, Chinese
Students’ Number Sense in Open-Ended Problem Solving

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ABSTRACT

The objective of this research was to analyze the characteristics of students’ number sense in open-ended problem solving by using qualitative research methodology. Data were analyzed by protocol analysis and analytic description. The target group included 6 Pratomsuksa 2 students, studying at Ban-Bueng-neum-bueng-krai-noon school, Muang Disttict, Khon Kaen Province. The school participated in Research Project for Developing Model of Students’ Mathematical Thinking Development by Lesson Study and Open Approach.

Research findings, revealed that during students’ open-ended problem solving characteristics of number sense were found; 1) Number meaning including place value, the cardinal and ordinal numbers. 1.1) Place value: students’ writing show value of number in distributive form and writing show “digit” “tenth” “hundredth” in problem solving strategy and describe being tenth and digit by using block 1.2) Cardinal number: students’ talking and writing about number of object in open-ended problems with various symbol for representation. 1.3) Ordinal number: students’ talking and writing about position of number or order of number in open-ended problem solving strategy. 2) Exploring number relationships with manipulative: number decomposition and recomposition that is students’ writing described problem solving strategy by using number diagram. 3) The relative magnitudes of number, including comparison and sequence of number: students’ talking and writing describe about increase and decrease relationship of subtraction between two numbers. 4) The relative effect of operating on numbers: Students’ talking and writing establish relationship between minor result with result of open-ended problem using number diagram 5) Using references of number and quantity in their environment situation: students’ talking and writing describe about reason of number comparison by using place value of number for identifying location of card filled with number 1-9. It showed that Open-Ended Problem was implemented as initiate problems to approach students to problem solving in 4 stages of Open Approach. This is the context to grasp students’ number senses in classroom and important to study and develop students’ number sense.

Keywords: Number Sense, Open-ended problem
Rational

Mathematics curriculum of Thailand fixes to give number sense is quality of the student who ends the third year and all most student should. Furthermore, the curriculum of many countries give precedence with instruction and learning number sense (Anghileri, 2000 Australian Education Council, 1991 Cockcroft, 1982 Japanese Ministry of Education, 1989 refer to Yang, 2003). Because Number Sense will help to give a child can consider the reasonability of manner calculation result and the answer of numerical problem. (NCTM, 1989) Brownell (1972, refer to Reys, 2001) give precedence with Number sense as base function of the operation and basically the base in the reason about the calculation. Howden (1989) tell that number sense convince them to make sense mathematics, that it is not just a collection of rules to be applied. Students who can make judgments about the reasonableness of computational results and realize that more than one way can be used to arrive at a solution gain confidence in their ability to do mathematics and from the research indicates that, the self-confidence is influential in the view point of student making a decision about mathematics education in the future. Furthermore, Riley, Greeno, and Heller (1983, refer to Sharon H. Ross, 1989) tell that the small children who have number sense will have the high flexibility in problem solving. In now, activity education instruction arrangement in Thailand, the teacher still teach by relaying and set examination questions from the thing that a teacher relay and build the culture dictate to go up in the classroom and in the part of activity education instruction mathematics arrangement in Thailand that not emphasize at learning way mathematics process but still emphasize content and doing exercises for understanding the content only (Maitree Inprasitha, 2546). And report from Programme for International Student Assessment (PISA, 2006) appear that, the points of majority student is in the second level which be base level and the first level which lower base level from all six levels. Maybe instruction education mainly in Thailand still doesn't emphasize at learning process will encourage to give the student occurs the procedure thinks (Maitree Inprasitha, 2546). But context of school in Research Project for Developing Model of Students’ Mathematical Thinking Development by Lesson Study and Open Approach, that classroom culture and arrangement activity education instruction differently. Maitree Inprasitha (2546) tell that the instruction by use Open Approach that have the aim for everybody student can study mathematics in the trend that meets the ability of them going together with their level of the making a decision, and can enlarge or add the quality of the process and the effect about mathematics. In Open Approach classroom use Open-ended problem is initial problem giving student does solve problem. Nohda (2000, refer to in Maitree Inprasitha, 2546) tell that, Open-ended problem has the character is problem situation that gives a chance to give a lot of students can solve a problem fully with their the competency because a student can be posing problem of oneself from Open-ended problem that fix to give and give a student a chance has an experience that long in the solve problem each time. Open-ended problem can be separated into 3 kinds 1) the process is open 2) the end product are open 3) ways to develop are open. The Open-ended problem that built and develop to accompany with between a teacher in the school share the research project and the researcher. Which the classroom in this project that emphasizes open-ended problem solving for the student has investigated the answer with oneself and different from the general classroom of Thailand. Therefore a study of Students’ Number Sense in Open-Ended Problem Solving in this context has been interesting.
Objective

The objective of this research was to analyze the characteristics of students’ number sense in open-ended problem solving.

Methodology

This research using qualitative research methodology. Data were analyzed by protocol analysis and analytic description. The target group included 6 pratomsuksa 2 students and studying at Ban-Bueng-neum-bueng-krai-noon school, muang Distinct, Khon Kaen Province. The school participated in Research Project for Developing Model of Students’ Mathematical Thinking Development by Lesson Study and Open Approach.

The data is collected by researcher and co-researcher recorded videotape, recorded tape, recorded picture and field note focusing on target group students’ problem solving behavior throughout 6 open-ended problems. Data for analyzing included data from: 1) Protocol of students’ open-ended problem solving 2) Protocol of students’ interview 3) The students’ activity performance, analysis students’ number sense following conceptual framework National Council of Teacher of Mathematics. (NCTM, 1989)

The finding

Research findings, revealed that during students’ open-ended problem solving characteristics of number sense were found; 1) Number meaning including place value, the cardinal and ordinal numbers. 1.1) Place value: students’ writing show value of number in distributive form and writing show “digit” “tenth” “hundredth” in problem solving strategy and describe being tenth and digit by using block 1.2) Cardinal number: students’ talking and writing about number of object in open-ended problem, such as “whose” “How many” with various symbol for representation. 1.3) Ordinal number: students’ talking and writing about position of number or order of number in open-ended problem solving strategy. 2) Exploring number relationships with manipulative: number decomposition and recomposition that is students’ writing described problem solving strategy by using number diagram. 3) The relative magnitudes of number, including comparison and sequence of number: students’ talking and writing describe about increase and decrease relationship of subtraction between two number. 4) The relative effect of operating on numbers: Students’ talking and writing establish relationship between minor result with result of open-ended problem using number diagram 5) Using references of number and quantity in their environment situation: students’ talking and writing describe about reason of number comparison by using place value of number for identifying location of card filled with number 1-9.

Conclusion

According to the analysis of number sense from 6 open-ended problems were ordered with complexity of the increasing Mathematical Approach, found that: 1) the use of open-ended problem in Mathematics Class could help the students in expressing their number sense at least one aspect, the first aspect of number sense or the meaning of number sense, was found which consisted of characteristic of place value, cardinal number, and ordinal number in solving problem all of 6 open-ended problems, and 2) the aspect of number sense in different aspects with constant quantity for all of 6 aspects. It showed that the construction of Lesson Study for using in Mathematics Classroom.
according to Lesson Study focusing on the students’ anticipation while the lesson plans were being performed, could affect the questioning and arranging the material for enhancing the students to express their mathematical Approaches indicating the aspect of number sense with full competency. Furthermore Open-Ended Problem was implemented as initiate problems to approach students to problem solving in 4 stage of Open Approach. This is the context to grasp students’ number senses in classroom and important to study and develop students’ number sense.

Reference

Der – Ching Yang. (2003). Teaching and Learning Number Sense an Intervention Study of Fifth Grade Student in Taiwan. *International of Science and Mathematics Education*, 1, 115-134


Effects of Teaching and Learning about Material and its’ Properties through Inquiry Cycle (5Es)

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ABSTRACT

This research aimed to study Grade 5 students’ learning achievement of teaching and learning about material and its’ properties through inquiry cycle (5Es). The target group comprised of 43 Grade 5 students of Khon Kaen University Demonstration School, first semester of year 2008. The study was action research that aim to improve students’ learning achievement through inquiry cycle. Research instruments included achievement test, classroom observation, teacher and student reflection form, and interview. The intervention was carried out in 7 lesson plans of inquiry cycle for learning about material and its’ properties. The findings reflected the pathway of improving and learning for enhancing students’ learning achievement in each of 3 action research loops. The reflection across 3 action research loops revealed the continuously gained students’ learning achievements. The summative test showed that approximately 82 percents of students have got higher mean score of learning achievement than 70 percents.

Keywords: Inquiry Cycle, Learning Achievement, Materials

Introduction

The new system of education stresses lifelong learning. This includes classroom learning in schools, non-formal education for adults and a system of informal learning. Learning can take place anywhere, at all times, and all levels within learners themselves and outside the classroom. With the emphasis on lifelong learning, Thailand must provide learning resources (ONEC, 2000). Thai learning reform is based on the philosophy of constructivism. Education reform is imperative for sustainable development of the country because in a knowledge-based economy, competitiveness is attained through knowledge and ability of the people to make decision societal issues related to science and technology. Like many countries around the world, scientific and technological literacy is goal of science education for all. Scientific and technological literacy immunize people to live in wave of globalization. Science teaching and learning can be a part of provide citizen for many skills to live in society. It should support people logical, critical, and creative thinking. Science teaching and learning should also provide people the skills for inquiry and problem solving.

Regarding constructivism, the Institute for the Promotion of Teaching Science and Technology (IPST) promote science teaching and learning through inquiry cycle (5E). The 5Es consists of engagement, exploration, explanation, elaboration, and evaluation. IPST has trained to teach science through 5Es nation wide (Boonkuap and et.al., 1997). However, it is lack of the evidence of learning outcome of science teaching and learning through 5Es. We are working as science teachers in Khon Kaen Demonstration school.
Learning Communities for Sustainable Development

(modindaeng), Khon Kaen province in the northeast of Thailand. We would like to enhance our students scientific concepts and skills of inquiry. The 5Es teaching strategies, promoted by IPST may enhance my students gaining their skills for scientific inquiry to give them higher achievement score. It also may allow my students have more chance to participate for science learning. This research aimed to study Grade 5 students’ learning achievement of teaching and learning about material and its’ properties through inquiry cycle (5Es).

Methodology

The study was action research that aim to improve students’ learning achievement through inquiry cycle. The framework of Kemmis and Mctaggart’ action research (Pongboriboon, 1994) allowed researchers, as practitioners, to learn from changing and improving of classroom learning environment for teaching inquiry showing in the Figure 1. Research instruments included achievement test, classroom observation, teacher and student reflection form, and interview. The intervention was carried out in 7 lesson plans of inquiry cycle for learning about material and its’ properties.

![Figure 1: Loop of action research for this study](image)

Target group
The target group comprised of 43 Grade 5 students of Khon Kaen University Demonstration School, first semester of year 2008.

The inquiry cycle material and its’ properties unit
The intervention of inquiry cycle material and its’ properties unit consisted of 7 lesson plans; totally 9 periods. The lesson plan of the unit was organized regarding the loop of action research. The detail was provided in the Table 1.

Table1
The inquiry cycle material and its’ properties unit

<table>
<thead>
<tr>
<th>Lesson Plan No.</th>
<th>Contents</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Material in everyday life and using</td>
<td>1</td>
</tr>
<tr>
<td>2 - 6</td>
<td>Material properties (hardness, toughness, elastic, heat and electric conducting,</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>States of matter</td>
<td>3</td>
</tr>
</tbody>
</table>

**Data collection and analysis**

Regarding action research, researchers learned from changing and improving the inquiry cycle material and its’ properties in each loop of action research; loop by loop. The first loop included the 1st and 2nd lesson plan. The second loop was the 3rd to 6th lesson plan. And, the third loop included the 7th to 9th lesson plan. Data collection and analysis was carried out as observation of the action process and the effect of action with aiming to reflect how and what changing and improving should be drawn. The tools of observation included participant observation, interview, and students’ achievement tests.

**FINDINGS**

The findings will be presented into three aspects including overview of learning activities, students’ score of the material and its’ properties to teaching and learning. The learning achievement of each loop will reported and then move to the summative learning achievement. Each aspect is discussed as below.

**1. Loop 1 Students’ learning achievement**

Students’ learning achievement mean of the Material in everyday life and using Material properties was showed in Table 2.

**Table 2**

Students’ achievement of loop 1

<table>
<thead>
<tr>
<th>Number of Pupils</th>
<th>Full score</th>
<th>% 70 of Criterion standard score</th>
<th>Number of pupils passed criterion standard score</th>
<th>% 70 of criterion standard full score</th>
</tr>
</thead>
<tbody>
<tr>
<td>43</td>
<td>10</td>
<td>7</td>
<td>36</td>
<td>83.88</td>
</tr>
</tbody>
</table>
The table 2 showed that students were taught by 5Es inquiry learning cycle had learning achievement of substances and its changing which upper medium score at 83.88 % which higher than a passing criterion score (70%). This would be mentioned that teaching and learning through 5Es inquiry cycle enhanced students to develop their understanding about material in everyday life and using.

2. Loop 2 Students’ learning achievement

Students’ learning achievement mean of the material properties was showed in Table 3.

Table 3
Students’ achievement of loop 2

<table>
<thead>
<tr>
<th>Number of Pupils</th>
<th>Full score</th>
<th>% 70 of Criterion standard score</th>
<th>Number of pupils passed criterion standard score</th>
<th>% 70 of criterion standard full score</th>
</tr>
</thead>
<tbody>
<tr>
<td>43</td>
<td>10</td>
<td>7</td>
<td>39</td>
<td>91.44</td>
</tr>
</tbody>
</table>
The table 3 showed that students were taught by 5Es inquiry learning cycle had learning achievement of substances and its changing which upper medium score at 91.44 % which higher than a passing criterion score (70%). This would be mentioned that teaching and learning through 5Es inquiry cycle enhanced students to develop their understanding about States of matter.

3. Loop 3 Students’ learning achievement

Students’ learning achievement mean of the states of matter was showed in Table 4.

Table 4
Students’ achievement of loop 3
The table 4 showed that students were taught by 5Es inquiry learning cycle had learning achievement of substances and its changing which upper medium score at 91.44 % which higher than a passing criterion score (70%). This would be mentioned that teaching and learning through 5Es inquiry cycle enhanced students to develop their understanding about state of matter.

4. Summative Students’ learning achievement

Students’ learning achievement mean of the the material and its’ properties was showed in Table 5.

Table 5
Summative students’ learning achievement mean
The table 5 showed that students were taught by 5Es inquiry learning cycle had learning achievement of substances and its changing which upper medium score at 86.11 % which higher than a passing criterion score (70%). This would be mentioned that teaching and learning through 5Es inquiry cycle enhanced students to develop their understanding about material and its’ properties.

**5. Reaction to teaching and learning based on 5Es instructional model**

Reflection of teachers and students indicated that learning activities concerning student-centred could enhance students’ satisfying, and participation. It also generated a good classroom atmosphere.

**CONCLUSION AND SUGGESTIONS**

It indicated that teaching and learning of the material and its’ properties through 5Es instruction model enhanced students’ understanding of the material and its’ properties. All loop of student learning achievement mean of the material and its’ properties was higher than a passing criterion score (70%). The summative students’ learning achievement also was than a passing criterion score (70%).

It would be assumed that students satisfied the teaching and learning of the material and its’ properties based on 5Es instructional Model. They preferred to do homework as groups because they could share ideas together. Majority of students had good cooperation in working group. They could share ideas in class, and well prepare their reports. They were appreciated to apply the substances and it changing for teaching and learning science in the future. However, some students took advantage of group working. They did not participate in group working. Therefore, they failed when they take examination.

Students aware self inquiring because they had more chance participation, developing thinking skills, and gaining their understanding in cooperative group. The learning activities allowed them to discuss and probe their skeptical ideas. Presentation gave them chance to elaborate their ideas about the material and its’ properties. However, inquiry would they thought there were too much work to do. Students had to spend much time to finish the work. This would affect their learning in other courses. Learning activities of the material and its’ properties, therefore, should be holistic and integrated various themes in science education.
REFERENCES

The Analysing Factor and the Cluster in Grouping Learners  
Based on Learning Styles and Cognitive Style

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ABSTRACT

The purpose of this study was to investigate learning styles and cognitive styles that systematically enhanced learners’ achievement as purposed by Grasha and Kolb. Research tools that could measure both styles were used to collect data from 198 sampling students. The three-way correlation method was used to analyze the data. The results gained from the analysis were then used as a guide to determine a suitable teaching method. The results gained from the analysis were then used as a guide to determine a suitable teaching method. The findings revealed that learners with competitive style received the highest mean 3.99. Those preferred collaborative style gave out the mean at 3.63. Learners with cognitive style, the diverger style gave out the mean at 3.83 and the mean at 3.77 for converger style. So the researcher had decided to use Blended learning. The achievement at the statistical level of 0.05. The factors were analyzed, 2 relationships. On trying 2 relationships the grouping by cluster analyzed. Found that learning styles could be grouped in to cognitive process were five styles. The learners with avoidant style could not be mapped with any cognitive styles. Kolb’s analysis model could not explain behaviour in all learning styles. The learners with avoidant style should receive a more special attention still.

Keywords : Learning Styles, Cognitive Styles, Teacher, Learners, Factor Analysis.

INTRODUCTION.

The quality of teaching and learning to reformed of Thai education. As a results, the interests birth about model and new methodology of teaching in to variety forms. In context of educational psychologists, educators, researchers, results of studies focus on learners in the Learners styles with Cognitive styles and learning styles. which as a factor in the process of thinking and behavior expressed learner. To enhance learning, increased efficiency learning and increased achievement of students in basic education and higher education (Emon Krisanarungsun, 2553). The goals of this study was studies bilateral idea will have like that to was from character student analysis. Which should to be make a start before the teaching and learning. “Before you prepare for your Teaching. The instructor should analyze all students needs to determine the development of intellect and knowledge and so on. The information about students help teachers write objectives and set up activities specifically for the unit being taught. So that learners can powerfully learn the lessons.”(Surang Kowtrakoon 2545:22). From messages aforementioned the purpose for gave an instructor realizes before begin the instruction that. How much were students have the readiness in the learning. The knowledge base in the level proceeding was how? To select the sample, content and activities to suit with the differences of

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students. A tool that used to was the questionnaires for analyses the students. Finding the questionnaire original popular in Thailand 2 model, was of Grasha and Reichmann (1974), and, David Klob (1976). To be a questions for to analyse learners, behavioural with Cognitive Psychology. Which that both theories should be correlated with each other, because behavior was expression will reflects the thinking of human emotion follow the idea Gestalt Theory or Gestalt psychology with the reason aforementioned. The researcher had use a tool could to gave the students assesses oneself at the same time both of 2 a side (Kanok and et al, 2552) and lead the received data that came to next analyse.

**OBJECTIVES.**

1. e-Investigate learning style of learners.
2. To study the consistent relationships between learning styles and cognitive styles.
3. To help decide how to teach students effectively.
4. To act as a mechanism to support development of the quality of education in higher education.

**RELATED THEORY.**

The starting on the study when review the literary review, Found that Coffield's serial Taxonomy of learning styles from articles review 800 more than the article, between year, A.C. 1987-1997. (Coffield and et al., 2004., referred to in Daniel K. Schneider, 2007) and Sandra had proposed the table of continuation studies of the research learning styles during between A.C.1909 - 2008 (Sandra et al., 2008). The information from 2 both of tables, present the concept of Kolb's (1976) was stay in the group studies the constancy and change the cognitive. Grasha and Reichmann (1974) in the styles group of behavior modification and the concept of learning Both belong to manage the teaching with emphasis on student center. However, the concept of Kolb (1984) for processing the data by brain was thinking. Which should be correlated with at behavioral expression. Switch Witjin and Goodenough said the cognition (Cognitive styles) have important to the learning style and personal expression. Both social and learning (Witkin and Goodenough, 1981, referred to in Surang Kowtrakoon, 2545).

1. Cognitive styles or styles of thinking Kolb’s (2005). Means the method or way the person likes using in perception collection process Understanding, remember message, news, information obtained and used to solve the problem. The Cognitive styles of individuals is quite constant. (Emon Krisanarungsun, 2553).

2. Learning styles or Behavior styles of Grasha and Riechmann ((1996 refers to the learning character of students. Which might be expressed in behavior. The liking doesn't like, ability, interest, skill, procedure thinks, to the expression used to decided whether to choose any activity. The concept these could be used to describe the many of learning styles. (Tissana Khemmani, 2551).

Kolb was take time on education and more than 20 years for investigation to found patterns of students thinking. Derived from theories of learning from experience (Kolb & Fry 1975, Referred to in Mark K. Smith 1996, 2001.) And the learning styles inventory (LSI: Kolb.1985, Referred to in Klob 2005). Kolb was received from influenced, theory the psychoanalyst "Intellectual Development" Theory Jean Piaget's. The studies of
learning through experience, learning was a process that follow continues to circle the cycle (Circular cycle). From Figure 1 Kolb (2005). Kolb’s explain that the dimensions of learning have two types was perception and information processing. Some learners prefer Concrete Experience, while some people prefer Abstract Concepts, some students Prefer Trial, while some Meditative Observation. These dimension, Kolb divided the students were 4 learning styles from thinking process. With the method seeks to find the topmost average was analysis cognitive styles of the learner. There was the detail as follows.

1. Diverger: concrete, reflective: like asking "why" and learn by observation.
4. Accomodator: concrete, active: like asking "What would happen if" and learn by direct experience.

Grasha and Reichmann's concept was classified by type of group Behavior styles (Tissana Khemmani, 2551:4), the research found that in Grasha students were learning styles them likes one to two styles from all sixth styles (Grasha, 1996:127) an advice on how to manage the learning and behavior modification of students. Using self-learning behavior questionnaires of 60 items to calculate the highest criteria for classification as an styles, likewise with cognitive styles Kolb's. Grasha and Reichmann classify students were all six type. There was the detail as follows.

2. Dependent style: learner require advice from teacher. Need help And need external motivation (such as praise, award) in the studies not in response or interaction. Are not eager to learn more. And tend to follow the ideas of others and leaders.
3. Avoidant style: a student that did not want to know about the course content to students. do not like to attend class be not interested in to learn, feel resist the direction of instruction education.
4. Collaborative style: the students who prefer learning activities that students participate, collaborate, interaction love and enjoyed working group.
5. Competitive style: a study of the nature of the game and hold their interest, but self-centered and motivated to learn from others to win. Fun games / sports combat Events like that are allergic to - win Enjoy the game as a group.
6. Participant style: a student interested want to know about the content of courses. That learner prefer learning fun learning in class. Amenable to the teacher and follow the direction of teaching and learning.

LITERATURE REVIEW.

Research related to this study. Researcher was found that studied to analyze Relationship between learning styles and cognitive styles. There were results studied from some researchers. For example: Ferrell and Barbara G. (1983) they were studied the learning styles theories, including 4 of the theories e.g. Grasha-Riechmann (LSI), Kolb (LSI), Dunn (LSI), and Johnson (DMI). results show that the factors analytic to classify
the theories of class 3, not consistent with the behavioral learning styles Gracha-Riechmann's got all every the behaviour. Eugene Sadler-Smith (2000) studied the relationship of "The Learning Style Inventory" (Kolb, Rubin & Osland, 1995) and "The Cognitive Styles Analysis : CSA" (Riding, 1991) found that in the analysis of the relationship Factor analysis both styles of relationship were independent of each other. Kolb (2005) have reviewed researches and compare the his theory VS styles of learning theories. So on if the relationship of behavior and thinking processes of learners could link to the both styles more clearly. Allows may been teachers to choose teaching methods and activities most appropriate to the learners.

METHODOLOGY.

This research was a survey research to studies the relationship (Correlation) between learning styles and cognitive styles. Used basis the mathematics and statistics appropriate analyze relationship of variables to describe the results and program excel for the Math Science's processing and data processing , statistical program with Spss. Version 11.1

1. The participant in this research to be  students in the Graduate Diploma Program in Teaching Profession Nakonratshima college. Amount 422 population the number of sampling from a table of Krejcie and Morgan method select by Random selection were a male 74 females, 124 person including 198 at the value of confidence 95%. The research organized operations surveyed by providing group sampling respondents in the first hour of teaching in subject innovation and information technology for educational. The online questionnaire includes queries from 60 items Gracha’s and 32 items Klob’s theories (Education Research Division,2544).When learners answers completed the questionnaires. All information to be analyzed for the all learning styles. By conclusions of the study in groups and individually. Used to decided the teaching method appropriate for learners. The end of course follow up to evaluation of learning achievement were different in each styles of learning or not. The sequence analysis of the relationship.

2. To study relationships. (Correlation) to the following description.
   2.1 How ranked pair (Ordered pairs) to determine the mathematical relationship.
   2.2 The number of group analysis method factor (Factor analysis) to determine the number of factors and relationships of the grouping variables.
   2.3 The number of specific factors of the relationship of variables grouped by the analysis group (Cluster analysis) to confirm the relationship found by a number of factors.

OUTCOMES.

1. Results of the questionnaire responses of 92 sampling were analyzed using an analytical basis. From table 1 showed that learning styles to the theory of Gracha. The Participatory Style Highest mean, followed by 3.88SD. 0.48 Style of Collaborative Style with an average 3.63SD. 0.41 minimum include Avoidant Style average 2.30SD. 0.58 The Klob's Cognitive Styles found that the Assimilator Style maximum average. 3.83SD. 0.54, followed with Converger Style average 3.77SD. 0.54 average minimum charge includes styles Deverger Style mean 3.65SD. 0.49
Table 1: Shows the sequence pairs and percentage from styles of learning styles and cognitive styles.

<table>
<thead>
<tr>
<th>Styles</th>
<th>N.</th>
<th>Diverger %</th>
<th>Assimilator %</th>
<th>Converger %</th>
<th>Accomodator %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>8</td>
<td>4.04</td>
<td>0</td>
<td>12.5</td>
<td>0</td>
</tr>
<tr>
<td>Avoidant</td>
<td>2</td>
<td>1.01</td>
<td>0</td>
<td>0.00</td>
<td>0</td>
</tr>
<tr>
<td>Collaborative</td>
<td>38**</td>
<td>19.19</td>
<td>16*</td>
<td>26.3</td>
<td>15.7</td>
</tr>
<tr>
<td>Dependent</td>
<td>12</td>
<td>6.06</td>
<td>0</td>
<td>16.6</td>
<td>33.3</td>
</tr>
<tr>
<td>Competitive</td>
<td>6</td>
<td>3.03</td>
<td>2</td>
<td>16.6</td>
<td>7</td>
</tr>
<tr>
<td>Participant</td>
<td>132*</td>
<td>66.67</td>
<td>8</td>
<td>29.5</td>
<td>16.6</td>
</tr>
<tr>
<td>Total</td>
<td>198</td>
<td>100.0</td>
<td>60</td>
<td>53</td>
<td>58</td>
</tr>
</tbody>
</table>

When the data was organized ordered pair using data with the highest mean score of learning style in each of Table 1 show that the sample style of learning involved. (Participant) up 66.67% of 132 with a style of Converger style 46 and 34.85% thought assimilator style 29.55% of 39 students total 170 accounted for 85.86%. The data relationship with the diagram of the description of Klob's diagram shown by Figure 1 are all style. The researcher had determined a method of teaching mixed (Blended learning) in this study.

2. Analyzes the relationship between the variables (Factor Analysis) of the sampling average of 10 variables used to analyze correlation coefficient in a straight linear of the Pearson’s Correlation between the variables, all partners to bring groups that were in the Correlation Matrix by using the method KMO and Bartlett’s. Test the suitability of the information shown for 0.854, more than 0.5. and one was enough to

Figure 1: The Klob’s diagram of the ordered pair
conclude that Information that was appropriate to test a technique Factor Analysis test statistical hypothesis base by means of Bartlett's Test of Sphericity requires. Assigned.

0 H: variables (Independent, Avoidant, ..., Accomodator) no correlation.
0 H: variables (Independent, Avoidant, ..., Accomodator) were correlation.

**Table 2**: The suitability of the data )KMO and Bartlett's Test(  

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .854 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 1140.851 |
| df | .45 |
| Sig. | .000 |

Results of analysis were detailed in Table 2 statistics value tests to have the distribution approximately the Chi-square = 1140.851 is the Significance = 0.000 which is less than 0.05 was rejected 0 H explain variable 10 patterns were correlation too. Factor analysis was used for the analysis of variance ratio. (Communalities) The value of the variable Dependent Extraction communality lowest 0.416, which is relatively low. As shown in Table 3.

**Table 3**: Communalities

<table>
<thead>
<tr>
<th>Table 4: Factor loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>10</td>
</tr>
</tbody>
</table>

From Table 4 shows statistics for each Factor before and after the extraction of factors by principle component in the extraction of factors found that only Factor 1 and 2 only. The Eigen-value greater than one should have only 2 Factor only % of Variance Factor 1 could explain the variations all of 48.95% and% of Variance Factor 2 could explain the variability of the data was 15.82% but less than 50%
both, it was concluded that there should be grouped only two forms.

**Table 5: Component Matrix**

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Converger</td>
<td>.899</td>
<td></td>
</tr>
<tr>
<td>Accomodator</td>
<td>.884</td>
<td></td>
</tr>
<tr>
<td>Assimilator</td>
<td>.868</td>
<td></td>
</tr>
<tr>
<td>Diverger</td>
<td>.780</td>
<td></td>
</tr>
<tr>
<td>Participant</td>
<td>.759</td>
<td></td>
</tr>
</tbody>
</table>

***2 components extracted.***

**Table 6: Rotated Component Matrix**

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Converger</td>
<td>.873</td>
<td>.240</td>
</tr>
<tr>
<td>Accomodator</td>
<td>.862</td>
<td>.226</td>
</tr>
<tr>
<td>Assimilator</td>
<td>.836</td>
<td>.247</td>
</tr>
<tr>
<td>Participant</td>
<td>.775</td>
<td></td>
</tr>
<tr>
<td>Diverger</td>
<td>.694</td>
<td>.364</td>
</tr>
<tr>
<td>Collaborative</td>
<td>.689</td>
<td></td>
</tr>
</tbody>
</table>

***Rotation converged in 3 iterations.***

The grouping of factors. The data results in table 5: found that the two were divided in factors one every model, but factor 2 could be grouped only four styles. Results from the rotation axis was styles that placed in the same group. To continue as before with the rotation axis based on the value not exceeding 0.5 and more than 0.5, used results of Factor analysis, led to analyse repeated with Cluster analysis methods to for insist groups.

**Figure 2:** Grouping Hierarchical Clustering
3. The average of all sampling of the 10 components as shown by Figure 2 of the Hierarchical Clustering, using measures the distance a Square Euclidean Distance and using integration as how to determine the average linkage classification determined by the results of the analysis. Factor Analysis showed that the two groups of students from the learning styles of thinking and behavior. The relationship between 9 styles but no relationship or a relationship with very little learning style to avoidant. When the test groups divided into four groups according to the styles of thinking. Results showed that consistent the two groups with the same.

SUMMARY AND DISCUSSIONS.

1. The study found that Sample 198 have the learning behavior in the style of Participant Style highest average overall 3.88 and Collaborative Style average 3.63 Assimilator Style value highest, followed by 3.83 Converger Style average 3.77. Which did not comply with the Sangdeun and et al. (2545). May be caused by level of study and seniority. Given the organized sequence pairs using learning styles based study showed that all the Cognitive Styles. Thinkers variety of Diverger Style 60 Converger Style 58 people Assimilator Style 53 and Accomodator Style 27 will see that as a whole and the sample 2 types of learning styles to Participate Style and to Collaborative Style with the instructor in the class. So students should to be participate in reviews of class most and have spread to every styles of Cognitive Styles should focus on Operation and thinking together Studies from concrete to abstract.

2. The structure element analysis to decided for group amount with in arrangement group analysis. Analyze results show that the groups were independent of each variable could have two groups in factor analysis. When analyze the group found. Avoidant learning style. There were relationships or little relationships with Kolb's questions. Explained that Kolb's Cognitive Styles could not explain the behavior of students have reached the concept of Gracha consistent with findings studied of Ferrell, Barbara G. (1983) concluded that an analysis of. Study of Kolb (LSI), Dunn (LSI) and Johnson (DMI) for the three ideas were related, did not correlate with all the factors. If you consider the result of organized ordered pair will find that styles of thinking is scattered throughout the learning styles of Gracha (1996).

3. The learning styles should to be studied were special. Students with styles and a reliance on Dependent Style 12 Independent Style of 8 a race Competitive Style of 6 and the final were an Avoidant style of 2 and 28, number of sampling from 198 participant and 4 styles of learner that must the interested specially, it was. The students were Avoidant Style the risk of not achieving the objectives of the study. However, because of all the learners at 14.14%, but only affect the decision to choose the difficulty of content and methods of teaching activities must be consistent with the difference between personal and course objectives.
4. The reasons No.3. The teachers selected teaching methods semi briefing theory of learning through e-Learning was currently popular them called the Learning Combination (Blended learning) to satisfy mixed the styles , Learning styles & Cognitive Styles with course of learners. Harvey Singh (2003). He was studied in this issue and describe the relationship between theories of learning groups Cognitive Learning Theory with Constructivism Learning Theory. As Figure 4: To develop self and discover knowledge. By following elements in the decision going to go on.

2. Style of learning (Learning Style) styles of learning and cognitive styles.
3. Content (Content) contents were not complex , Emphasis on technology.
4. Infrastructures. (Infrastructure) the readiness of institutions and learners.

When assessing the results of the study, found that of 422 ith academic achievement learned as the , X 82.22SD. 7.698, T-test used One Sample T-test results for the T = -1.517 Sig 0.065 , interpret that value The sampling group were learned achievement did not vary with the threshold average of the population, have a statistics significance of 0.05, consistent with research results of Saroj Osporneukht (2551). Learner was Avoidant Style the 2 person determined was especially important from researcher have value of point average follows: those person 1st have grade percentage 84.00, which had style of Converger Style and those 2nd have grade percentage 76.68, which had style of Diverger Style respectively, and the two person were learned at a good level.
RECOMMENDATIONS.

1. The same research should be repeated using the same methodology – compare a group of students with other groups on learning styles and cognitive processes of the learners.
2. For educational achievement of students, a lecturer should try on other teaching methods then test his/her students using the tools analyzed based on learners learning styles.
3. If students self-assessment ARE TO HELP us to better understand the state of their own learning styles, the tools for this study was already placed online on www assessments to assess students anywhere, anytime can be accessed.

http://www.kanok999.net/investigation/And e-Investigation
Teaching Styles Questionnaires On-line
http://www.kanok.999.net/mambo/teachingstyle/teachingstyle.html

REFERENCES.


~donclark/hrd/history/kolb.html


The Development of Questionnaires for On-line Teaching

Kanok Prothives1 (Kanok777@hotmail.com)
Nakhon Ratchasima College, Thailand

ABSTRACT

The purpose of this research was to investigate the teaching styles matching to learning styles of learner and appropriate teaching techniques. Which cause effective education management leading to the graduation is good quality standard. The developed teaching styles questionnaires Thai language version of the idea of Anthony F. Grasha and Rice Man and it’s placed on the website, and show the immediately results. Quality of tool used statistically value of IOC: 0.84, reliability coefficient alpha of Cronbach 0.85. The sample-test 50 using the test/retest, distance 1 month, the reliability of the entire questionnaire was 0.99. Use the factor analysis to investigate of correlation factors. The answer result responded to the 181 sampling from assistants teacher. Discover that the styles model high scores is a facilitator style the mean 4.07 SD 0.46 highest in groups. But there are other hidden style with the experimental group, level of satisfaction. Self-assessment the value means 4.59, standard deviation 0.55. Each Gender analysis of factors not differ significantly 0.01. The survey results allow teachers to understand themselves Found ways to teach that the process should be used with any style of teaching students with different learning style. Follow the instructions in the basics which must be adjusted according to Leela’s Course, and goals of the course.

Keywords: Teaching styles, Learning styles, Factor analysis, Gender, Quality

Introduction

Research studies regarding the problems in higher education management in Thailand have not covered many aspects and dimensions, including the quality of teaching and learning management and teachers’ quality, which are both below standard (Krissanapong: 2007). The Higher Educational Commission, which is directly responsible for this, has set up a policy in order to rise up the quality and potential of the country’s compatibility. This policy was initiated after research studies that reveal the low quality of Thai education in many areas. The first stage of this policy is the development of a five-year plan for higher educational development during (2006-2010). This has led to the next stage which consists of two long term plans: 1) The second higher education framework (2008-2022) and the Thai Qualifications Framework for Higher Education, TQF). Both of the plans aim to set up learning outcomes based on internal evaluation (Vicharn:2009). The plans and the policy consist of the section on teachers’ development in many aspects, as one of the most important mechanic in learning development which leads to good quality learners.

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Research have shown that some relationship between teaching behaviors and learning outcomes. The author is interested in investigating the effect of teaching styles, teaching management and teacher’s expectation on the learners, especially the aspect of “a number of students have to dropout because of their poor learning performance that has resulted from the mismatch between teaching styles and learning styles” (Caldwell & Ginther, 1996; Rayner & Riding, 1996, cited in Emon: 2010). It has been found that teacher’s personality and expectations, as well as the understanding in learning styles of students help reduce student’s stress and boredom. Teaching styles need from being boring to be more colorful, tasty, and joyful in order to reduce the age gap between the teacher and the learners. The teacher becomes more facilitator or pathfinder for the learners, which serves the aim of the national education act that learners must be wise, good, and happy.

From the above statements, quality of the students depends on many factors. One of the most critical factors is the teacher. The teacher highly influences on the learner as each teacher has their unique teaching style, attitude, and expectation, which determine the decisions on their teaching approach. Moreover, teacher’s personality and attitude also affect the classroom management and interaction between the teacher and the learners (Surang, B.E.2545: 32, 25). Therefore, teaching style, as well as teaching techniques, is factors that teachers need to be improved in the very first priority. This study aims to develop a Thai-version teaching style survey.

**Objectives**

1. To develop an online feedback teaching style survey
2. To identify teaching style from the teacher’s personality by feedback
3. To analyze the relationship between gender of the teacher and teaching style

This misunderstanding in teaching style may result in unsuccessful learning outcomes. This is why the teacher needs to understand his/her own teaching style that suits the needs of different groups of students. For the students, they also need to understand their best learning style that help them achieve their learning goals. It has been argued that teaching style that focuses on only lecturing, drilling, and more theoretical-based may not sufficient to enable students to apply their knowledge and they may lost their engagement (Pansak, B.E.2546). On the other hand, teaching styles that base on self feedback such as self reflection and profession development is the main focus of this study. It employs the principle of self assessment, which allow the teacher to revise their thoughts, description and reflection that lead to the development in their teaching job continuously in cycle (Danie K. Schneider: 2009).

The word “Style” in this study refers to the styles as defined by Anthony F. Grasha, which includes seven components: 1) general classroom behaviors, 2) a student’s preferred teacher, 3) teaching method, 4) classroom regulation, 5) personality, 6) model, and 7) teacher-student relationship (Anthony F. Grasha, 1996: 2)

From the study of Grasha (1996: 154, 169), teaching styles can be divided into five groups.

1. Expert style is the style that the teacher has a process in transferring the knowledge and improving student’s skills. Advantage: the teacher has sufficient
information, knowledge, and specialty in their specialized area. Disadvantage: the teacher’s expertise may cause the students to feel that the teacher is too expert while they lack of knowledge.

2. Formal Authority style is the style in which the teacher takes the role of leader who sets up the positive and negative condition. Advantage: the teaching goal is clear. Disadvantage: strong characteristics in teaching styles that follow some standards.

3. Personal Model style refers to the style in which the teacher sets out learning styles for students on what to do and how to think. The teacher checks, assists, control, show model for teaching style and give advises, as well as support the learners. Advantage: the teacher realizes the importance of giving advice, observes students behaviors as to follow the model. Disadvantage: the teacher focus more only on their model for best teaching style.

4. Facilitator style. This style focuses on the nature of the learners and the interaction between the learners and the teacher. The teacher advises and control the learners by questioning, knowledge acquiring, and leaning selection. Advantage: flexible teacher focusing on the learner. Disadvantage: sometimes time consuming, positive feedback only, and results are not assured.

5. Delegator style. This style mainly aims at the learners’ physical and mental development progress by themselves. This style allows students to freely choose their projects in the subject, or let them manage their group. Advantage: learners learn by themselves independently. Disadvantage: there maybe some misinterpretation of the students’ readiness for learning independently.

In addition to the five styles mentioned, Grasha (1996:155-157,234) introduced the matching scheme between four groups of students with different learning styles and teaching styles, as the result of the study on 381 faculties in 125 universities on 10 groups of 762 subjects conducted during 1972-1994. The matches are presented in the following table.

<table>
<thead>
<tr>
<th>Group 1 “Now hear this”</th>
<th>Group 2 &quot;Watch me, now&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expert / Formal Authority</td>
<td>Personal model / Expert / Formal</td>
</tr>
<tr>
<td>Dependent / Participant / Competitive</td>
<td>Participant / Dependent / Competitive</td>
</tr>
<tr>
<td>Advice on teaching process</td>
<td>Advice on teaching process</td>
</tr>
<tr>
<td>• Multiple evaluations and instant feedback</td>
<td>• Role model with picture, participation in problem solving, thinking process</td>
</tr>
<tr>
<td>• Short lecturing with examples, demonstrations, questions with activities as main focus</td>
<td>• Example role model, demonstration on thinking and doing, imitate the model by the students</td>
</tr>
<tr>
<td>• Frequent questions and discussions by teacher to hold students’ involvement</td>
<td>• Think/do/practice the teacher’s advice, etc.</td>
</tr>
<tr>
<td>• Group reports and presentation</td>
<td></td>
</tr>
<tr>
<td>• Practical work</td>
<td></td>
</tr>
<tr>
<td>• Presentation using technology, etc.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group 3 &quot;Try This&quot;</th>
<th>Group 4 &quot;Do It-Yourself&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitator / Personal model / Expert</td>
<td>Delegator / Facilitator / Expert</td>
</tr>
<tr>
<td>Collaborative / Participant / Independent</td>
<td>Independent / Collaborative / Participant</td>
</tr>
</tbody>
</table>

Table 1. Teaching methods according to teaching styles and learning styles by Grasha (1994)
Advice on teaching process

- Case studies, discussion to create cognitive map
- Discussion to summarize critical thinking process
- Laboratory projects
- Problem Based Learning, etc.

Advice on teaching process

- Learning rules, agreement
- Seminar type of classroom
- Independent Study
- Jigsaw Groups, Learning Pairs, Small group learning
- Cooperative teaching, discussion, journal, module teaching, etc.

In addition, the author has integrate teaching styles by Tissana (B.E.2551) with that of Grasha (1996: 193), in accordance with the learning styles by Mantra (B.E.2544), to create six following learning styles:

1. Competitive style. Suitable teaching techniques for this learning style are those that test against learner’s ability which have clear learning goals and evaluation scheme. There have to be progress tests frequently. Classroom should be organized to support teacher center and group activities.

2. Independent learning style may employ teaching style which allows students to select and make decision on their learning method independently, for example, individual research study on certain area of interest, with presentation to class. Teacher may assist on the interest of each student and organized classroom independently to suit student projects.

3. Dependent learning style is suitable for peer group teaching style, in which students select a partner to assist each other’s learning. Students may switch their buddy to suit different learning objectives.

4. Avoidant learning style may be suitable for self directed learning where student learn to sent their own learning goal, determine their needs, and plan their own learning paths. The teacher may support students for their practical work.

5. Collaborative learning style is suitable for Co-operative learning using group process, where students are allowed to learn within a small group, interacting and sharing with their peers.

6. Participant learning style may employ participatory learning in which the learners allowed to involved in each stage of learning process, from content selection, learning approach and activities through to the stage of testing and evaluation of learning outcomes. Classroom should support both lecturing and group discussion.

The survey used in this study is adapted from Teaching Style Survey by Anthony F. Grasha and Riechmann (1991-1996). It consists of 40 items which are grouped and averaged according to the low, moderate, and high value, respectively.

<table>
<thead>
<tr>
<th>Subject Groups</th>
<th>Expert</th>
<th>Formal Authority</th>
<th>Personal Model</th>
<th>Facilitator</th>
<th>Delegator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art/Music/Theater</td>
<td>4.68</td>
<td>5.14</td>
<td>5.73</td>
<td>5.27</td>
<td>3.99</td>
</tr>
</tbody>
</table>
Humanities | 3.92 | 4.73 | 5.16 | 5.12 | 3.77  
Foreign Languages | 4.22 | 5.43 | 5.29 | 5.01 | 3.82  
Social Science | 4.32 | 5.01 | 5.23 | 5.00 | 3.76  
Applied Studies | 4.61 | 4.92 | 5.22 | 5.00 | 3.72  
Applied Science | 4.29 | 4.70 | 5.29 | 4.86 | 3.82  
Business Admin | 4.41 | 5.22 | 5.21 | 4.79 | 3.86  
Physical / Biological | 4.47 | 5.02 | 5.18 | 4.60 | 3.53  
Math/computer Science | 4.66 | 5.11 | 5.23 | 4.28 | 3.29  
Education | 3.93 | 4.51 | 5.32 | 5.41 | 4.10  

| Mean | 4.35 | 4.98 | 5.28 | 4.93 | 3.77  
| SD  | 0.27 | 0.27 | 0.16 | 0.32 | 0.22  

* 7 scale, ** Source: Anthony F. Grasha “Teaching Styles (1994:168)

The review of research and data collection by Grasha for more than 25 year
( Teaching Style Inventory: 1994) revealed two main model teaching styles, with
total average score of 5.27, formal style score of 4.98, and Facilitator style score of 4.93. Out of ten groups
of 762 subjects drawn from 381 faculties in 125 universities, subjects concerning
education involved the recommended styles the most (the score of 5.41).

In the review of Felder-Silverman model of Grasha (2002) by Michael J (2008), in
which teaching style that emphasizes individual differences were employed, he suggested
the following: 1) in selecting teaching style, the teacher should consider the knowledge
and pers

Methodology

This study is an exploratory survey research, aiming to develop survey on
teaching style in Thai version that can give instant feedback by incorporate basic statistic
advises from Grasha and some Thai researchers.

1. The translation of the original English version into Thai used the Back Translation
technique suggested by Patchare (2005:13,25), by experts in both Thai and English. Some of the words, for example, I in English has been converted to a suitable
word that can be used for both male and female instead of the usual words in Thai that are
different between gender.
2. The sample group was a group of 50 teachers at Nakhonratchasima College taking a one-month test-retest for reliability.

3. The survey was then used with 181 students, drawn form the total 345, at graduate school majoring in teaching profession in order to identify their teaching styles during their field practice at schools under the basic education areas.

4. The data collected from 181 students were analyzed for descriptive statistics and factor analysis on the differences in teaching styles between genders.

Results

1. The translated version (Thai version) by a local language expert and an expert in English language was developed using back-translation technique.

2. The IOC from five experts using committee approach, with no meeting, was 0.84, with alpha of 0.8512 using Cronbach alpha coefficient method. The invention was corrected according to the experts’ suggestions and was applied to 50 students with 1 month repletion of retest. The reliability value of the whole survey was 0.99.

Table 3. The items in the survey

<table>
<thead>
<tr>
<th>Item</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Facts, concepts, and principles are the most important things that students should acquire.  ความรู ทฤษฎี และ หลักวิชาการ เปนสิ่งสําคัญที่ผูเรียนควรจะไดรับในการเรียน</td>
</tr>
<tr>
<td>2</td>
<td>I set high standards for students in this class.  ขาพเจากกําหนดเกณฑมาตรฐาน าสูงสําหรับนักศึกษาในชั้นเรียนนี้ (การวัดผล / การประเมินผล / ผลสัมฤทธิ์ ฯลฯ)</td>
</tr>
<tr>
<td>3</td>
<td>What I say and do models appropriate ways for students to think about issues in the content.  อะไรที่ขาพเจาอธิบายและยกตัวอยางประกอบบทเรียนเปนสิ่งที่เหมาะสมกับผูเรียนที่จะสามารถอธิบายประเด็นปญหาในเนื้อหาบทเรียนได</td>
</tr>
<tr>
<td>4</td>
<td>My teaching goals and methods address a variety of student learning styles.  จุดมุงหมายและวิธีการสอนของขาพเจาเหมาะสมกับรูปแบบการเรียนรูของผูเรียนที่หลากหลาย</td>
</tr>
<tr>
<td>5</td>
<td>Students typically work on course projects alone with little supervision from me.  ตามปกติแลว ผูเรียน ทางาน รายงาน โครงงาน ใบเวลา ด้วยตัวเอง โดยไมมีการส่งงานจากขาพเจา</td>
</tr>
<tr>
<td>6</td>
<td>Sharing my knowledge and expertise with students is very important to me.  การแลกเปลี่ยนความรูและความเชี่ยวชาญระหวางผูสอนกับผูเรียนเปนสิ่งที่มีความสำคัญสาคัญตอผูเรียน</td>
</tr>
<tr>
<td>7</td>
<td>I give students negative feedback when their performance is unsatisfactory.  ขาพเจาใหคําแนะนําติชมในเชิงลบ เมื่อผลงานของพวกเขาไมนาพอใจ</td>
</tr>
<tr>
<td>8</td>
<td>Students are encouraged to emulate the example I provide.  ขาพเจาสงเสริมใหกําลังใจผูเรียนเพื่อใหสามารถเรียนรูไดจากตัวอยางที่กาหนด</td>
</tr>
<tr>
<td>9</td>
<td>I spend time consulting with students on how to improve their work on individual and/or group projects.  ขาพเจาใหเวลาปรึกษาและใหคําแนะนําเกี่ยวกับการปรับปรุงงานของผูเรียนเกี่ยวกับงานเป็นสาคัญและกลุมของผูเรียน</td>
</tr>
<tr>
<td>10</td>
<td>Activities in this class encourage students to develop their own ideas about content issues.  การสงเสริมกิจกรรมในชั้นเรียนจะชวยเสริมและพัฒนาความคิดเกี่ยวกับประเด็นในเนื้อหาที่เรียน</td>
</tr>
</tbody>
</table>
| 11   | What I have to say about a topic is important for students to acquire a broader perspective on the issues in that area.  ความรูที่ขาพเจาตองการจะสงเสริมกับผูเรียนเกี่ยวกับการพัฒนาการคิดและทัศนคติในประเด็นที่เรียน
Students would describe my standards and expectations as somewhat strict and rigid.

I typically show students how and what to do in order to master course content.

Small group discussions are employed to help students develop their ability to think critically.

Students design one of more self-directed learning experiences.

I want students to leave this course well prepared for further work in this area.

It is my responsibility to define what students must learn and how they should learn it.

Examples from my personal experiences often are used to illustrate points about the material.

I guide students’ work on course projects by asking questions, exploring options, and suggesting alternative ways to do things.

Lecturing is a significant part of how I teach each of the class sessions.

I provide very clear guidelines for how I want tasks completed in this course.

I often show students how they can use various principles and concepts.

Students take responsibility for teaching part of the class sessions.

My expertise is typically used to resolve disagreements about content issues.

This course has very specific goals and objectives that I want to accomplish.

Students receive frequent verbal and/or written comments on their performance.

I solicit student advice about how and what to teach in this course.

Students set their own pace for completing independent and/or group projects.

Students might describe me as a "storehouse of knowledge" who dispenses the fact, principles, and concepts they need.

My expectations for what I want students to do in this class are clearly defined in the syllabus.

Eventually, many students begin to think like me about course content.

Development of the ability of students to think and work independently is an important goal.

Course activities encourage students to take initiative and responsibility for their learning.

It is my responsibility to define what I want students to do in this class and how to do it.

Examples from my personal experiences often are used to illustrate points about the material.

Lecturing is a significant part of how I teach each of the class sessions.

I provide very clear guidelines for how I want tasks completed in this course.

I often show students how they can use various principles and concepts.

Students take responsibility for teaching part of the class sessions.

My expertise is typically used to resolve disagreements about content issues.

This course has very specific goals and objectives that I want to accomplish.

Students receive frequent verbal and/or written comments on their performance.

I solicit student advice about how and what to teach in this course.

Students set their own pace for completing independent and/or group projects.

Students might describe me as a "storehouse of knowledge" who dispenses the fact, principles, and concepts they need.

My expectations for what I want students to do in this class are clearly defined in the syllabus.

Eventually, many students begin to think like me about course content.
34 Students can make choices among activities in order to complete course requirements.
ผู้เรียนสามารถเลือกที่จะทำสิ่งต่าง ๆ ที่ต้องทำ เพื่อให้เสร็จตามวัตถุประสงค์ที่กำหนดในรายวิชานี้.

35 My approach to teaching is similar to a manager of a work group who delegates tasks and responsibilities to subordinates.
วิธีการสอนของฉันคล้ายกับผู้จัดการที่แบ่งงานลงให้ทีมงาน.

36 There is more material in this course than I have time available to cover it.
มีเนื้อหาที่มากกว่าที่ฉันมีเวลาสอน

37 My standards and expectations help students develop the discipline they need to learn.
มาตรฐานและความคาดหวังของข้าพเจ้าช่วยให้ผู้เรียนพัฒนาจริยธรรมในการเรียน.

38 Students might describe me as a "coach" who works closely with someone to correct problems in how they think and behave.
ผู้เรียนอาจกล่าวว่าข้าพเจ้าเป็นผู้แนะนudgeeที่ทำงานร่วมกับผู้เรียน และช่วยแก้ไขปัญหาที่เกิดขึ้น.

39 I give students a lot of personal support and encouragement to do well in this course.
ข้าพเจ้าแก้ไขให้ผู้เรียนมีความมั่นใจและsetMessageให้ทำสิ่งต่าง ๆ ให้สำเร็จ.

40 I assume the role of a resource person who is available to students whenever they need help.
ข้าพเจ้ายอมรับความแตกต่างระหว่างบุคคลและสวมบทบาทในการให้ความช่วยเหลือผู้เรียนเมื่อต้องการ.

Table 4. Number and Percentage of Teaching Styles (N=181)

<table>
<thead>
<tr>
<th>Teaching Styles</th>
<th>Mean</th>
<th>Low Scores</th>
<th>Moderate</th>
<th>High scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expert</td>
<td>3.92</td>
<td>[1.00 &lt; 2.80]</td>
<td>[&gt; 2.80 &lt; 3.8]</td>
<td>[&gt;3.8 - 5.0]</td>
</tr>
<tr>
<td>Sd. 0.46</td>
<td>2</td>
<td>1.10%</td>
<td>71</td>
<td>108</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>39.28%</td>
<td>59.67%</td>
</tr>
<tr>
<td>Formal</td>
<td>3.62</td>
<td>[1.00 &lt; 1.90]</td>
<td>[&gt; 1.90 &lt; 3.1]</td>
<td>[&gt;3.1 - 5.0]</td>
</tr>
<tr>
<td>Sd.0.53</td>
<td>0</td>
<td>0%</td>
<td>27</td>
<td>154</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>14.91%</td>
<td>85.09%</td>
</tr>
<tr>
<td>Personal Model</td>
<td>3.78</td>
<td>[1.00 &lt; 2.80]</td>
<td>[&gt; 2.80 &lt; 3.4]</td>
<td>[&gt;3.4 - 5.0]</td>
</tr>
<tr>
<td>Sd.0.53</td>
<td>1</td>
<td>0.55%</td>
<td>30</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16.57%</td>
<td>82.88%</td>
</tr>
<tr>
<td>Facilitator</td>
<td>4.07</td>
<td>[1.00 &lt; 3.00]</td>
<td>[&gt; 3.00 &lt; 4.0]</td>
<td>[&gt;4.0 - 5.0]</td>
</tr>
<tr>
<td>Sd.0.44</td>
<td>2</td>
<td>1.11%</td>
<td>57</td>
<td>122</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>31.49%</td>
<td>67.40%</td>
</tr>
<tr>
<td>Delegator</td>
<td>3.82</td>
<td>[1.00 &lt; 1.80]</td>
<td>[&gt; 1.80 &lt; 2.8]</td>
<td>[&gt;2.8 - 5.0]</td>
</tr>
<tr>
<td>Sd.0.46</td>
<td>0</td>
<td>0%</td>
<td>1</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.55%</td>
<td>99.45%</td>
</tr>
</tbody>
</table>

* Amount in table was mean Person or Pepole

The contents of questions after that Complete check back Tool and improved the instructions from the expert , using tools with sampling of 181 persons. Satisfaction in to self-assessment have the average 4.59 SD 0.55. From Table 4 found that the Facilitator style have highest mean at 4.10 , Expert style  and Delegator style, respectively. It was found that teachers in the Thai educational was Facilitator style correspond with investigate of Grasha (1996) had the highest average in the same. When , consider from amount person number. Found that, the Delegator style were 180 person amount most. Followed with the Formal Authority style 154 people and a Personal Model style of 150 person. From table 5 could explain that. When separation person amount from topmost average in each the style. The teaching styles of each one to found a style of style other
behavior styles or cognitive process used in the process of teaching and expectations of teachers toward students.

Table 5. Compare High Score of teaching Styles

<table>
<thead>
<tr>
<th>Styles</th>
<th>High Score</th>
<th>Teaching Styles (High Score)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Expert [&gt;3.8 - 5.0]</td>
<td>Formal [&gt;3.1 - 5.0]</td>
<td>Personal [&gt;3.4 - 5.0]</td>
<td>Facilitator [&gt;4.0 - 5.0]</td>
</tr>
<tr>
<td>Expert</td>
<td>3.92</td>
<td>108&lt;sup&gt;⁎&lt;/sup&gt;¹</td>
<td>99</td>
<td>104&lt;sup&gt;⁷&lt;/sup&gt;³</td>
<td>63</td>
</tr>
<tr>
<td>Formal</td>
<td>3.62</td>
<td>98</td>
<td>154&lt;sup&gt;⁻²&lt;/sup&gt;²</td>
<td>136&lt;sup&gt;⁷&lt;/sup&gt;³</td>
<td>81</td>
</tr>
<tr>
<td>Personal Model</td>
<td>3.78</td>
<td>101</td>
<td>135&lt;sup&gt;⁻¹&lt;/sup&gt;²</td>
<td>150&lt;sup&gt;⁷&lt;/sup&gt;³</td>
<td>77</td>
</tr>
<tr>
<td>Facilitator</td>
<td>4.07</td>
<td>82</td>
<td>108</td>
<td>111&lt;sup&gt;⁷&lt;/sup&gt;³</td>
<td>122&lt;sup&gt;⁻¹&lt;/sup&gt;¹</td>
</tr>
<tr>
<td>Delegator</td>
<td>3.82</td>
<td>109</td>
<td>154&lt;sup&gt;⁻²&lt;/sup&gt;²</td>
<td>150&lt;sup&gt;⁷&lt;/sup&gt;³</td>
<td>84</td>
</tr>
</tbody>
</table>

* Sequence of teaching styles were teachers choose used

The teachers groups at the highest mean, from ranking Table 4. When used comparative analysis of teaching styles with classification grouping Grasha's (1996). When used comparative analysis of teaching styles classification grouping Grasha's (1996) with teachers assistants groups found that Factor Analysis. The gender side, found male have KMO 0.768 sig 0.00 was 1 factor that can explain all the variation 73.69%. Female have KMO 0.804 sig 0.00 was 1 factor that can explain all the variation 65.10%. The results of Table 6 and Table 7, both male and female styles of teaching was the relationship between each styles of teaching Correlation 0.99 Sig 0.00. When used Paired-T-test Method. Both male and female factors underlying the Personal model style Higher than other. Style of Facilitator and Delegator styles, factors that explained less than other.

Table 6. Relation factors

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Model</td>
<td>.937</td>
</tr>
<tr>
<td>Delegator</td>
<td>.907</td>
</tr>
<tr>
<td>Expert</td>
<td>.901</td>
</tr>
<tr>
<td>Formal Authority</td>
<td>.775</td>
</tr>
<tr>
<td>Facilitator</td>
<td>.756</td>
</tr>
</tbody>
</table>

b Gender = male are used

Table 7. Relation factors

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Model</td>
<td>.864</td>
</tr>
</tbody>
</table>

Delegator | .845 
Expert    | .807 
Facilitator | .789 
Formal Authority | .722 

b Gender = female are used
Conclusions

1. In the development of this Thai version online survey, the author used the direct translation from the original language in the Thai, which has been proved consistent by reverse translation and field try-out and multiple corrections and adjustment.

2. The research results show that gender relates to teaching style. That is, teaching styles of male teachers were not significantly different (at .01 level) from teaching styles of female teachers. In summary, the overall score for teaching styles of teachers taking certificate degree in teaching at Nakhonratchasima College were 4.07 for recommended teaching style, 3.92 for expert style, and 3.82 for student representative style. When consider other teaching styles that had been observed during the teaching process and the teacher’s expectation on students, there were some weak points in the expert style and specialist style at similar level, which was not consistent with the current intention of the national education act. This may be because of the misunderstanding and misinterpretation of the roles of teachers.

The comparing dimensions in this study can be distorted according to the level of teachers being assessed. That is, the basic educational level may give different results from higher educational level. However, teaching style is not the only factor that can be consider separately from other factors such as learning environment, student background, classroom settings, student gender, motivation and social and culture problems in educational institutes (Brophy & Everston, 1976, cited in Kowtrakul, 2002). Kowtrakul (2002) suggested that for an effective and successful teaching, the teacher “should be consistent in emotion, behavior, and teaching activity because the teacher influence not only on the students’ learning outcomes, but also their attitude toward learning, which is important to make them decide to or not to continue their study”.

Recommendation

1. Compare between teaching styles in more dept and width in terms of the teaching styles that most students preferred nationwide, which may be more beneficial to the country’s educational goals.

2. Study each item and analyze for the weight of teaching styles that have been found mostly used and are correspond with the national qualification framework, which can also be adapted to suit the changing problem in higher educational teaching.

3. If the teachers assess their teaching styles, it may be helpful for their teaching. Teacher can access the online survey set up by this study at any time at http://www.kanok999.net/mambo/teachingstyle/teachingstyle.html

References


Analytical Assessment of MCQ Test in Medical Physiology at Khon Kaen University

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ABSTRACT

Background: MCQ is widely used as the evaluation tool in education. The analytical assessment of MCQ is also very important to provide the valuable information for the test developer to improve the quality of assessment tool.

Purpose: This study aimed to determine the MCQ quality used for evaluating the achievement of medical student in Medical Physiology at Faculty of Medicine, Khon Kaen University.

Methods: MCQ items from the examination paper used for evaluating the achievement of Medical Physiology in the first and second semesters of 2009 at Faculty of Medicine, Khon Kaen University were analyzed using the discrimination and difficulty indices as indicators. Then, the analysis of correlation coefficient between difficulty and discrimination indices was performed.

Results: Approximate 64.71% of the exam item showed appropriate difficulty, 8.23 % was very difficult while 20 and 7.06% of the items were easy and very much easy. The discrimination power analysis showed that 16.47 and 21.18% of the items showed the very high and high power of discrimination while 23.53 and 34.12% of the items showed only average and poor power of discrimination. In addition, 4.71% of the items failed to show the discrimination power. Moreover, our data revealed that no significant correlation between the difficulty and discrimination indices in both semesters.

Conclusion: Although, our findings showed the requirement of carefully consideration on the MCQ items used for the achievement evaluation of Medical Physiology, other factors which also affected the outcome such as environment and psychological factors should also be considered.

Keywords: Item Difficulty, Discrimination Index
Innovation of the Triage Method on Educational Consultation in Japan

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ABSTRACT

In this research, I introduce the practice report of educational consultation in Japan. School Counsellor System was introduced 14 years ago in Japan. School Counsellor is staffed eight hours for a week per a school. Consequently, School Counsellor has to be implemented in an effective and efficient manner for a brief period. I innovated triage method in School Counselling. In some cases symptom of the client was cleared up and educational consultation in this school was improved. The results indicated that innovation of the triage method in educational consultation is useful.

I introduction

The Education Ministry implemented a research commission business for practical use of school counselor starting in 1995. The school counselor system in Japan was introduced 14 years ago. Each school is staffed with a school counselor for eight hours a week; moreover, school counseling has to be implemented in an effective and efficient manner during this brief period of time. I was responsible for innovating the triage method to suit school counseling.

II Consultation and Collaboration

Reviewing a survey about school counseling, it begins with a process of applying a structured interview space of “one-on-one” as personal treatment to a school, and now, it needs to intervene in school community containing a teacher or the organization called a school system (Ito, 1999; Kurosawa,1997). The focal point is consultation and collaboration. Consultation in the school is indirect support given by a teacher, and collaboration between a teacher/school and a school counselor, and they need the collaboration between the teacher practice and psychology (Ito, 2009).
Collaboration is, between those who take a different viewpoint in and out of the given system, aiming common objectives and utilizing each personal and physical resources in a limited period, to develop talks and activities that contribute to solve their problems (Kameguchi, 2004).

That is to say, making a collaborative supporting to the pupils/students with their teachers, it is important to consult with the teachers from the viewpoint of clinical psychology.

As for the writer, the duty form of School Counselor is about 4-8 hours a week, it is useful for educational consultation to make the consultation activities based on collaboration rather than the individual interview.
In addition, I brought in the viewpoint of the triage, aiming more effective educational consultation in my limited time.

III The viewpoint of the triage in educational consultation

Triage means sorting/assortment/classification. It is a term that means to establish treatment priority in a medical situation. By this system the treatment order of injured persons can quickly determined, and an ambulance service becomes smooth and effectively (Tsugawa, 2005).

I want to focus on the point that the triage is not an absolute judgment based on the condition of a patient but rather a “relative” judgment based on the response abilities of providers such as the existing staff, medical supplies, and the treatment environment.

When I apply this concept in the context of a school, the “injured persons” are pupils/students, and the ability to respond comes from providers such as human resources or from physical resources.

IV Practice of the triage in the school

Initially, the school counselor evaluates what kinds of resources exist inside and outside of the school. Second, the school counselor assesses the pupils or students. For the pupils/students in need of help, the school counselor assesses their development level and pathological level. Information gathered from contemplation by the teacher, the family, and the school counselor who observed the student’s class, is necessary for this assessment. In cases related to abuse, the school counselor works with an administrator to assess an imperiousness. Third, the school counselor assesses the environment around a pupil/student. In this case, I first evaluate the classroom teacher and the other teachers and check for the following. 1. Can this problem be settled in consultation with the classroom teacher? 2. Is it a problem that should be dealt with the support team of teachers or the grade? 3. Is it a problem that deals with connections with resources outside of the school?
The school counselor makes a relative decision in view of these considerations. For the pupil/student, the school counselor does the triage to determine whether we can support them with the resources in an existing school. This approach is effective because it can fix the system of educational consultation that the school counselor utilizes to help teachers adjust, while the school counselor takes the role of a liaison. In addition, when we cannot cope with the resources available in the school, we can refer a pupil/student to a local medical institution or child consultation center, and give support by cooperating with them. It is especially necessary to pay attention that we do not overlook signs of particular mental disorders among adolescents and possible emergencies that might relate to suicide.

<table>
<thead>
<tr>
<th>classification</th>
<th>severity level &amp; urgency level</th>
<th>Capacity &amp; Quality of resource</th>
<th>Correspondence</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Severe / High</td>
<td>Low</td>
<td>support by cooperation with the outside resource</td>
</tr>
<tr>
<td>II</td>
<td></td>
<td></td>
<td>SC counsels them and copes by team support.</td>
</tr>
<tr>
<td>III</td>
<td></td>
<td></td>
<td>cope by the team support in the resource in the school.</td>
</tr>
<tr>
<td>IV</td>
<td>Mild / Low</td>
<td>High</td>
<td>consultation with the class teacher</td>
</tr>
</tbody>
</table>
IV Generalization and Problem

I engaged in school educational consultation as a school counselor while collaborating with teachers from the perspective of the triage. As a result, education consultations utilized school counselors more effectively and became sufficient. This achievement cannot be formed without information from everyday observations made by teachers. I am establishing a viewpoint of the triage sharing information at educational consultation and want to make use of it for future team support.
Development of English Reading Skill by using Cartoon Book for Matayomsuksa 1 Students, Puluangwittaya School, under the Office of Loei Educational Service Area 2

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ABSTRACT

The objective of this research was to develop the activities using cartoon books and English Reading Skill by using cartoon books for Matayomsuksa 1 Students so that at least 70% of students would obtain average score passing specified criterion from 70% and up.

The target group consisted of 34 Matayomsuksa 1/2 Students of Puluangwittaya School, under jurisdiction of the Office of Loei Educational Service Area 2, studying during the second semester, 2009 school year. There were 2 kinds of instrument as classified by the usage: 1) the instrument using for practice experimentation including 9 Knowledge Management Plans, 9 stories of cartoon lesson, and 2) the instrument using for data collection including the Teacher’s Record, the Student’s Learning Behavior Record Form, the Student’s Interview Form, the English Language Skill Test, and the English Language Reading Achievement Test. For Qualitative Data Analysis, the analysis, interpretation, and conclusions were performed. For quantitative data analysis, the Frequency, Percentage, Mean, and Standard Deviation were performed.

The research findings found that:

1) For the findings of development in activities using cartoon books for developing English Language Reading Skill, found that the cartoon lessons were obtained with appropriateness and relevance to context, the students’ knowledge, competency, and experience. The cartoon pictures included beautiful colour facilitating the relaxation from stress, easiness for reading, availability for reading throughout the time, knowledge in more vocabularies, and comprehension in lesson, the learning interest as well as reading skill. As a result, the students respectively obtained better English Language Reading Scores in each cycle.

2) For the development of English Language Reading Skill by using cartoon lesson, found that it could develop the students with the average score of English Language Reading Skill for 77.47%, and there were 82.35% of students passing the specified criterion as 70% by achieving the determined objective.
ABSTRACT

The objective of this research was to study the reading and writing skills of Pratomsuksa 6 Students taught by work project. The target group using in this study included 28 Pratomsuksa 6 Students of Nikom-sangton-eng Heuy-luang 2 School, Goodjab District, under jurisdiction of the Office of Udonthani Educational Service Area 4, studying during the second semester of 2009 school year. For this study, the guideline of research based on Pre Experimental Design as One-Group Post-test Only, was determined by the researcher.

The instruments of this study consisted of: 1) the Knowledge Management Plan of Foreign Language Learning Substance, English Language Subject, 2) the Activity Management Plan of English Language Work Project, and 3) the Learning Achievement Test in English Language. Data were analyzed by calculating the Percentage.

For research findings, found that the students obtained their learning achievement in English Language Subject for 70.71% of full score. There were 21 students or 75% of total number of students passing the criterion.
Learning Process Arrangement by Self-directed Learning in the Instruction of Economics in School

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ABSTRACT

The purposes of this research were to arrange learning process by self-directed learning, to compare self-directed learning readiness of students before and after arrangement of learning process by self-directed learning and to study students satisfaction toward learning process by self-directed learning in economics in school. The target groups that used in this research are 48 third class social studies students of faculty of education, Khon Kaen University who registered in economics in school in the first semester of year 2009. The experimental instruments were 6 self-directed learning plans of economics in the school. The data collecting instruments were self-directed learning readiness scale (SDLR) and students’ satisfaction toward learning process arrangement by self-directed learning questionnaire. The data were analyzed for mean and standard deviation through the computer program.

The Findings of this research were as follows:

1. The students had higher self-directed learning readiness in all of 8 elements of self-directed learning after arrangement of learning process.

2. The students were overall satisfied toward learning process arrangement by self-directed learning. When we considered in each side, we found that students satisfied respectively toward building atmosphere of closeness, proceeding of learning activities by support from instructor, give the students a chance to choose the learning ways by themselves, fix the purpose of learning that can come true, instructor supports students to analyze their requirement, can assess the progress of learning by themselves and arrange physical structure of a classroom in informal form.
Lesson Study through Open Approach: A Case Study of Primary School Level in KKU Demonstration School (Faculty of Education)

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ABSTRACT

The research aimed to investigate the research of lesson study through open approach: a case study of Khon Kaen University (KKU)’s Demonstration School (Faculty of Education) in primary school Level of the academic year 2009. The target group was consisted of 152 Primary students at KKU Demonstration School. The study followed lesson study procedure comprising 5 phases: firstly, group of teachers gather in doing lesson plans, secondly, lesson plans were implemented and observed in classroom, thirdly, classroom reflection, fourthly, concluding the teachers’ learning, and finally, rebuilding the lesson plans. The instruments were used in the study 1) Lesson plans in Mathematics Learning substance, 2) Observation form to classroom learning by teachers 3) Observation form to classroom learning by co-researcher, and 4) Audio visuals and photocopies from digital camera. The findings were as follows; 1) Having had lesson plans for Mathematics Learning substance, 2) To achieve this, having given moral supports in the process of project by administrators, it could be more importantly, 3) teachers had become their new roles from inspectors to facilitators, raising their harmony, working in groups, reflecting their teaching observation in order to improve their teaching, 4) students were feel free to find their own answers concerning with thinking process, thinking differently, creative thinking and analytical thinking, knowing how to overcome the problems, working in group rationally, and 5) according to observation in class, teachers were able to gain individually more information about their students.

Keywords: Lesson study, Open approach, Primary school
ABSTRACT

The purpose of this research was concerned with the survey on basic information technology network in tourism places. This research was a part of the continuing three years project in which it focused on the development of the tourism potential in the North-East of Thailand and this recent research was the third part, therefore it was where have been used for the study since the project in 2008 was begun. The tourism places mentioned above were as the following; 1. Phu Pa Terb National Park, Mukdahan province, 2. Phu Tok Temple, Loei province, 3. Pra That Cherng Chom Temple, Sakon Nakorn province, 4. Sud Ta Was Temple, Nakorn Panom province, 5. Pra That Pranom Temple, Nakorn Panom province, and 6. Pa Tam National Park, Ubon Ratchathani province.

The research samples included documentary staff, administration staff and public relation staff of the tourism places. The questionnaire was used as the research tool to estimate the readiness for using computer network which has been modified from Kerr et al system.

Results indicated that the number of staff depends on the size of each tourism place. In addition, there was no specialized staff for those tourism places that are temples. However, there were some places that the monks are directly responsible for the tourism work. Most of the samples had a low readiness for using computer network to administrate and also manage their tourism places. Nonetheless, they still have been able to use the word process and some search engine for the office work via the telephone connection. For those have had the satellite dish, it could not be used as its high potential due to the lack of expert. When the computers were broken, they would always be delivered to the shops to fix them. Computers have not been used for all other works apart from the official documentary work. Furthermore, most staff had not been able to gain a high benefit from using the computers even they have had a readiness in a medium level. The development of the potential readiness for using the computer network in the tourism places was low. When we consider in detail, we can list out a number of problems occurred as follow.

1. The computer modems always have a connection problem and the satellite dish does not work. The fact that there is not enough specialized staff that can look after and fix them so the computers need to be delivered and fixed at the shops in the town centre in which the inconvenience may cause. Furthermore, the budget is another important issue that they have only a small amount of money for computer maintenance and also the specialized expert is insufficient in the area of tourism places.

2. Most staff of the tourism places is local people who have been employed but they have not had enough knowledge to use the computer network. Some of them used to learn computing studies before but they have not often used it so that they cannot recognize the instruction and those computers can be used for producing documentary work only.

The development of the potential readiness for using the computer in the tourism places requires both human resources and the highly qualified equipments because the survey used for giving the advice to people is not very helpful unless they have the staff with the high knowledge to use the computer network and the very good tools.

Keywords: ECOtourism
Nakhon Phanom Farmer’s Life Style and Learning about Rice Farming Ecosystem

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ABSTRACT

The study aimed to explain what and how culture and life style situated Nakhon Phanom Farmers to learn about rice farming ecosystem. Methodology regards the interpretive paradigm. Regarding sociocultural view of learning, the relationship between human mental functioning; and cultural, historical, and institutional setting were taken into account for interpreting about their learning about rice farming ecosystem. Target group consisted of 14 farmers who represented 7 tribes, a man and a woman from each tribe, in Nakhon Phanom Province. Data collection was carried out in communities where key informants live in and their farms. Research instruments included physical observation, participant observation, and unstructured interview. Findings clarified the influences of farmers’ construction knowledge about rice farming ecosystem, and making coherences of their life styles and existing ideas about rice farming ecosystem. Observing the mediation of construction knowledge through three plans of analysis; as (1) apprenticeship, (2) guided participation, and (3) participatory appropriation; allowed the interpreters to categorize farmers’ constructing meaning about rice farming ecosystem into 4 models including social heredity, sharing to the neighbor, sharing to government offices, and TV media. The paper will discuss scientific concepts related to event or activities to develop connection between socioculture and science learning in schools, and the implications of these results for better understanding socio-cultural views of learning, especially in relation to science teaching and learning in Thailand.

Keywords: socioculture, learning, science, farmer, rice, ecosystem

Introduction

In human life, main four requisites for living are needed e.g. food, clothing, shelter and medicines. Food is one of significant factors because food can grow human body make people strong and give energy to human beings. Rice as the main food plays important role to mankind from the past to present. Human-beings knew and started collecting rice seeds as a plant in "Grimineae" family. Consumption of rice had been found since pre-historical era. Since then rice plays a significant part in human life and becomes main food at present. (Riabriang, 2008)

Thai society is based on agricultural social. Most of population plant rice since the past. So, rice becomes main food as well as one of the most important economic plants. Rice is close bonding to Thai people. The story of rice and its relevant things such as farmers, cows and buffalos, farming tools and equipment and environment are normally used to reflect Thai economic, social, and culture in extensive, detailed, and profound
way (Thongdee, 1995). Rice farming generates country productivity. Farmers or farm workers are significant production capacity as ‘country spine’. It is obvious that even H.M. the King also realizes the importance of rice farming and encourages farmers by using Phra Raj Phiti Peuj Mongkol Jarod Phranangkal Raek Na Kwan (the Cultivating and Ploughing Ceremony). In the kingdom of Thailand, this ceremony has been continuously held since Sukhothai era recorded by evident (Pannantee, 1993). Rice farming is then related to the contexts of thinking, belief, the way of life corresponding to nature, climate resolution, tool and leverage equipment making, etc. These result in rich rice culture with knowledge and wisdom of Thai farmers. We can explore this knowledge from farmers and practical farming.

Kuptustien (1991) said that Thai society is a social comprising various groups of people in terms of living life and occupations and then all of them are transferred from a generation to following generations. It can be said that experience mass transferring is a natural way of learning i.e. depending on observing what their ancestors had done since they was born, as often seen and followed step by step until the new generation people are familiar and absorb such knowledge naturally. Besides Thai society is a knowledge-based society. There is knowledge transfer occurring between individuals via participating and exchanging knowledge of each other to sustain such social activity continually (Omthuan, 2006).

Farmers’ learning is based on the concept of constructivism theory. It is believed that learning is a reorganization process of existing knowledge, belief, or basic concept depending on social activities as a medium to create understanding in specifying meaning, event, and new experience that such individual encounters. Knowledge and belief rearrangement occurs inside the individual through some experiment or application to new event or new experience and also via reformation until getting in shape and the knowledge and understanding is worth using for any event or situation (Chaicharern, 2004). Similarly, Fosnot (1996 cited by Rodrangkha, 1997) believed that constructivism theory is a concept to illustrate the transient of knowledge with non choice development and created inside individual by using social and cultural intermediate. Learning under this theory was seen as a self-controllable process against conflict initiated between the existing knowledge and the new and different one. It can be considered the new representative and reconstruct the new reality model by the person defining the meaning by utilizing cultural tools and symbols as well as compromising such meaning through social activity, corporation and exchange of both agreed and disagreed opinions. Moreover, context is the one of key factors to stimulate farmers’ learning. Lave (1991) confirmed that learning is a stimulant derived from the context (situated) i.e. it happens as usual. Learning is embedded into activity, context, and culture. Farmers learn and integrate understanding of work, attitude, and behavior together by using culture as a binder (Wolcott, 1988 cited by Richardson, 1999). It is obvious that learning and integrating those things can be achieved by experiencing practice. So, knowledge is extracted from learning urged by context (Situated Learning) in farmers’ workplace.

Farmers’ learning has been accumulated and adapted to natural circumstances and ecosystem changes (Hawanon, 2006). Natural environment and social and cultural environment are defining each other. Human beings can live in different surroundings because they rely on culture as a tool for their self-adaptation. Culture is what human beings learn, accumulate, and transfer from their ancestors to next generations. Therefore, culture can be used for adapting environment in accordance with individual needs.
Cultural ecology is a concept to demonstrate self-adaptation process in such social under influence of circumstance by focusing on evolution and change resulting from social adaptation. This concept emphasizes dynamic or vibrant social. The change results from adaptation to environment based on technology, social structural production, and environmental characteristics as the significant criteria in the change and adaptation of social and culture (Steward, 1995 cited from Phollurxa, 2000).

Rice farm is one of ecosystem sorts related to human way of life with components e.g. living things. Naturally, living things cannot survive alone without dependence on others. Reasonably, every group of living things has biological relationship such as food chain, living dependence and fighting for their food or resident. Furthermore, living things is physically relevant to non-living things including light, water, temperature, or minerals necessary to survive. Hence, ecosystem learning is highly significant because it directly and indirectly links to human lives as the human beings are a part in ecosystem then they shall understand components of ecosystem, relationship of living things in the ecosystem, and energy transportation in the ecosystem to survive without damaging environment.

The author intents to investigate learning of farmers’ way of life in Nakornpanom province about rice farm ecosystem. In this research, as Nakornpanom is the origin of the researcher and the province contents 7 ethnics and each has different approach for rice farming and ecosystem learning. Rather than use as a guide of human resource development for ability to learn about science according to current social context, it is also a concept in learning and teaching ecosystem in schools and event the educational management of science class to make students realize the social change. This research reflects the real situation of how the farmers work and what activity illustrates the science learning beneficially impacting the connection between science curriculum and local community to discover how science exists in the community, which science the local students want to learn. This is to promote students to be qualified for social needs.

Research Questions
What did farmers learn about rice farming ecosystem from their life style?
How did the farmers’ life style situated they learn about rice farming ecosystem?

Methodology
This research is conducted regarding the interpretive paradigm. Interpretive research seeks to describe and interpret human behaviour based on their natural setting rather than form laws about it (Marriam, 1998; Cohen et al., 2000). Concerning the issue of dependability, therefore, a clear description of how data was obtained and open acknowledge of context should be taken into account. The study aimed to explain what and how contexts about Nakhon Phanom Farmers’ life style situated their learning about rice farming ecosystem. Regarding sociocultural view of learning, the relationship between human mental functioning; and cultural, historical, and institutional setting were taken into account for interpreting about their learning about rice farming ecosystem. This study regards the Rogoff (1995)’s ideas about observing the mediation of construction knowledge within sociocultural activities. The observing should engage in the developmental processes with three plans of analysis as (1) apprenticeship, (2) guided participation, and (3) participatory appropriation. As the process of interpretation, people perception was interpreted by a researcher who is local people of Nakhon Phanom. The interpretation of data is based on fields work.
Target group

There are total 7 ethnics living in Nakornphanom province e.g. Thaiyor, Phutai, Thaikalerng, Thaiso, Thaikha, and Thailao (Thai-isan). People in each of ethnic live as a group invading in district areas. These ethnics keep contexts of their self-culture, self-belief, and self-value as concluded below:

1) Phutai people particularly have a willingness to welcome visitors coming from different places by providing wrist-binding ceremony, gala dinner, elephant riding (a couple drinking from moonrat jar or local traditional moonrat drinking from jar by using blowgun tube. There are all year round ceremonies in respect to “Heetsibsong Kongsibsee” traditions in addition to traditional dancing called “Fonphutai” with delicate and gentle styles incorporating to traditional musical band named “Kan”. Most of them are located in Re-nunakorn area, some of them are in Nakae, Thatpanom, and Plapak districts.

2) Thaiyo is a group of Thai-Lao migrated from Hongsa district, Xayaburi province of Lao People's Democratic Republic and was situated in the area of Songkram river month since 1814. Most of them are in Tha-uten, Banpang districts and Bankwangkee village, Bankoh sub-district, Ponsawan district called as ‘the village of ghost condominium’

3) Thaisak originated from Muang Sak, Kamkerd district, Bolikamxay province near by Vietnam border about 20 kilometers had migrated to Thailand since Thais suppressed Anuwong rebel in the age of Rama 3. Most of them are located in Udsamart area, Muang district, Nakornpanom province and some of them are in Nawah district. They have an important tradition of Sak’s pestle dancing

4) Thaikalerng people have their own verbal language as same as Thaiso. They migrated from Suwannaket and Kammuan province, Lao People's Democratic Republic. Most of them resided in Phrasong village, Phrasong sub-district, Nakae district and Ramaraj sub-district, Tha-uten district.

5) Thaiso people previously lived in Mahachai and Kongkaew district, Kammuan Province of Lao People's Democratic Republic. Then, they migrated to northeastern area of Thailand since Rama 3 era after suppressing Anuwong rebel. They have their own belief and faith in their ancestors. One of important rituals is Sotungbung. They live in Patai-Nongtao village and some of them are in Srisongkram district and Ponsawan district.

6) Thaikha is a native ethnic living with Thaikalerng, Thaiso, and Thailao. At present, they almost are merged. Previously, Thaikha originated in Suwannaket, Salawan, and Uthapue province of Lao People's Democratic Republic and migrated to Thailand since Rama 3 of Rattanakosin era. Some evidences show that Thaikha people live with Thaiso in Nakornphanom province such as Kamteuy, Thajampa, Tha-uten districts, Nakornphanom province.

7) Thailao (Thai-isan) is a big group. They speak Thai-Lao (Isan). They are a leader in Isan cultures e.g. usage, custom, legend, literature, tradition. They often settle as a group village in hilly area locally called “non”. They prefer location for rice planting as a priority and live around.

Therefore, 14 key informants were selected from 7 farmer ethnics in Nakornphanom province. These people were a representative of ethnical concept for people living in the province totally 7 ethnics e.g. Thaiyor, Phutai, Thaikalerng, Thaiso,
Thaisak, Thaikha, and Thailao (Thai-isan). Two people were selected from each ethnic and a man and a woman were chosen from these two of each.

Methods of Inquiry

Farmers’ learning about rice farming ecosystem was situated by sociocultural activities and life style will be interpreted through observation and participant observation, and key informants’ informal interview. The 14 key informants was interviewed in order to clarify what and how farmer in their community learn about rice farming ecosystem related to farmers’ life style. Data in communities was collected by researcher who is local people. Researcher emerged in the farmers’ sociocultural activities and activities and go along with key informants. Therefore, researcher has more chance to probe what and how farmers’ learning on those farm activities.

Findings

Regarding sociocultural view of learning, the relationship between human mental functioning; and cultural, historical, and institutional setting would be viewed as tools for farmers construction of knowledge about rice farming ecosystem. The farmers were situated to learning about rice farming ecosystem Farmers learning about rice farming ecosystem could be explained into Rogoff (1995)”s three plans of observing the mediation of construction knowledge. These include (1) apprenticeship, (2) guided participation, and (3) participatory appropriation..

On focus, the following implementing activities were carried out; field data collection, observation on each process of rice planting, and interview in the aspect of learning media on ecosystem in rice fields held after each of rice planting activity. After considering collected data based on conceptual framework of 3 rice planting processes i.e. seeding preparation, rice transplanting and harvest integrating with a concept of learning the socio-cultural view, it was believed that learning process of knowledge of farmers in Nakornphanom province in ecosystem of rice fields is a process between farmers and environment of context that farmers interact with such as culture, belief, value, social interaction, occupation, activities in daily life of farmers which learning about these was influenced by socio-cultural dimensions i.e. when farmers face a certain situations in rice planting such as unexpected productivity, weeds, pests, water shortage, spoilt soils. These situations are often found in the community and resided in such cultural or contextual sources. Once these situations take place, farmers have to resolve the problems to get answer for each situation then learning occurs in consistent with the concept of Brown, Collins and Duguid (1989 cited by Yunyong, 2007) stating that learning is directly relevant to cultural situation and activity with the explanation that illustrate basic concept of relationship between situation and knowledge creation by using the term “Situated cognition” as a process of cognitive differently based on the thinking framework and specificity of that context as inferred below:

Conclusion of learning models about ecosystem in rice fields in Nakornphanom province based on constructivism

Regarding 3 rice planting procedures i.e. seeding preparation, rice transplanting and harvest. There are 4 learning models as summarized below:
1. Model A is a learning pattern from social experience or social transferring as the learning process is described in the following:

Model A means when farmers face some situation, they will solve it by doing what idea they have received from social or social experience transferred by their ancestors from a generation to another generation. Then, appropriate experiment for the situation will be implemented by trial and error and empirical experiment in accordance with given procedure to resolve the problem.

2. Model B is a pattern of learning from neighbors being able to be explained as following.

Model B means when farmers face some situation, they will solve it by doing what idea they have received from social experience transferred by their ancestors. Then, received information will be exchanged with neighbors by discussion or idea exchange, trial and error and then doing experiment according to procedures to solve the problem.

3. Model C is a pattern of learning from governmental organizations as demonstrated in the following:
Model C means when farmers face some situation, they will solve it by doing what idea they have received from social experience transferred by governmental organizations such as district agricultural officer providing knowledge after that the experiment will be held to fit to situation by trial and error and doing experiment according to procedures to solve the problem.

4. Model D is a pattern of learning from television media regarding the following learning process explanation

Model D means when farmers face some situation, they will solve it by doing what idea they have received from social experience transferred by television media. Then, suitable experiment will be held by using trial and error and then doing experiment according to procedures to solve the problem.

Based on 4 learning models in the way of life of farmers in Nakornphanom province about ecosystem in rice fields, it was suggested that learning about rice planting
in every stage, farmers do it until knowledge has been being accumulated as a part of their life. In rice planting, there are several related activities from first step to last step such as tool preparation for rice farming, rice line selection, plowing, harrowing to prepare a piece of land for transplanting, seeding preparation, maintaining after transplanting during rice growing, fermentation, keeping suitable water amount, weed removing, harvesting, threshing, seed collection after harvesting. In each step, when farmers encounter situations, they will learn to adapt methodology to obtain better productivity. Once problem takes place, solution will appear, for example, for rice line selection, farmers will choose the suitable rice line for their own farms. Rice line selection also relies on rice taste preference i.e. softness, aromatic smell. Knowledge in rice line is knowledge created from rice planting experience over times with trial and error and observation. So, it is a learning process based on the concept of how rice line was appropriately selected for land conditions. Accumulated and adjusted knowledge of farmers about rice line is correspondence with nature, ecosystem, and farmer necessity. Other than rice line selection to suite for the area, in rice plantation, farmers also initiate knowledge about seed preparation, for instant, they know how to prepare their own lands to fit the condition of rice transplanting in total area they want.

Interpreting lessons from rice planting for studying about ecosystem in rice fields

According to learning from the way of life of farmers in Nakornphanom in 4 areas 1) work 2) social interaction 3) custom and tradition and 4) belief of farmers of 7 ethnics i.e. Thaiyor, Phutai, Thaikalerng, Thaiso, Thaisak, Thaikha, and Thailao (Thai-isan) as described in the following:

<table>
<thead>
<tr>
<th>the way of life of farmers</th>
<th>farm activities</th>
<th>Interpreting lessons from rice planting for studying about ecosystem in rice fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Work</td>
<td>step of seeding and land preparation (plowing, fertilizing)</td>
<td>land ecosystem and ecosystem components in rice fields such as soil condition, light, humidity, air, pH</td>
</tr>
<tr>
<td></td>
<td>removal of weeds and pests</td>
<td>a relationship of living things in ecosystem of rice fields. Parasitism is a relationship of 2 living things living together. Parasites gain benefit but host lose benefits such as weeds in rice fields originated in that and steal minerals and food from rice and then rice cannot growth as it should</td>
</tr>
<tr>
<td></td>
<td>seeding plantation</td>
<td>producer and photosynthesis of plants</td>
</tr>
<tr>
<td></td>
<td>after seeding plantation maintenance is all about preferable water amount, sufficient fertilizers etc.</td>
<td>nutrition for rice and abiotic components such as protein, carbohydrate, fat, humus, etc. These organic material is necessary for living things and behalves like bridge connecting between living things and non-living things;</td>
</tr>
<tr>
<td></td>
<td>2) step of plowing and soil preparation (plowing, fertilization)</td>
<td>components of ecosystem in rice fields, for example, soil, light, temperature, air humidity, pH characteristics and soil nutrition for plants such as phosphorus, nitrogen, and potassium etc.</td>
</tr>
</tbody>
</table>
of farmers | studying about ecosystem in rice fields
--- | ---
1. Work | distance between sprouts in step of transplanting | a relationship between the same living things (Intraspecific relationship). Adverse effects like living as a cluster and living in the same way cause competition and overpopulation
| | removal of pests such as bivalves, aphids, etc. and removal of weeds such as gooseweed, water clover, etc. | biotic components e.g. producer, consumer and decomposer including energy flow in ecosystem in rice fields e.g. food chain, food web
| | 3) harvesting and post-harvest rice field management e.g. crop rotation such as a variety of beans, plough up and over, etc. | soil nutrition for plants such as nitrogen, etc.
2. Social interaction | gathering for growing rice and to help at harvest time to just in time of weather change | environment influencing living things such as rain quantity, temperature, etc.
3. Customs and traditions | rituals such as Peetahak, Phuta, Lianglong, Sukwankao, etc. | environment influencing living things such as rain quantity, temperature, etc. which connects social the learners live in
4. belief | belief in holy things in rice fields such as Peetahak, Maeposop, Maethoranee etc. | environment influencing living things such as rain quantity, temperature, etc. which connects social the learners live in

Therefore, the author concluded the interpreted lessons from rice planting of farmers in Nakornphanom province to educational class on ecosystem such as the meaning of ecosystem; ecosystem components: producer, consumer, and decomposer; relationship between living things in ecosystem, food chain, food web, nutrition for plants, and environment influencing living things etc. It was suggested that the way of life comprises work, interaction with social, customs and traditions and belief of 7 ethnics of farmers in Nakornphanom province. It can be the learning resources in science about ecosystem.

Furthermore, it was found that target group or subjects have good attitude about rice plantation, occupation or agricultural careers. Based on interview results, it was found that whether a capitalist intends to buy rice fields with very high price for factory construction, are they willing to sell their piece of land. Most of them deny selling their land with a reason that they will leave legacy for their children so their children can use the land for making use of it otherwise their children may need to buy rice or may be starving. Additionally, when the researcher interviewed them and asked them that how they want their children to continuously do the rice planting, most of them responded that they desire their children to do so because they think this is survival occupation. These imply that the farmers view the rice planting or agricultural occupation as a good way even it is exhausting job but they can rely on it. Learning about rice farming initiated by
farmers is a learning process interacting with nature, the number of existing workforces, demand and necessity of each family as well as satisfaction of the farmers. This learning was mostly formulated by social experience or social succession, trial and error, observation, knowledge exchange between farmers, neighbors, and governmental organizations. Farmers can do work plan for their family survival, therefore, this kind of learning makes them realize their ability, self-esteem, living with their honor including career stability of family living. This kind of learning will be introduced to next generations through real practice. Therefore, it was shown that farmer learning has accumulated and adapted to corresponding with the nature of ecosystem and their necessity.

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The Development of Grade 1 Integrated Learning Unit on the Beautiful and Dignified of I-San Dialect Based on the Philosophy Sufficiency Economy

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ABSTRACT

The research aimed to develop Grade 1 integrated learning unit on “The Beautiful and Dignified of I-San Dialect” based on the philosophy of sufficiency economy (PSE), and study the effects of the Unit implementation. These effects focused on Grade 1 students’ learning achievement and desirable characteristic regarding on the PSE. Research design was the one shot case study. Target group of the unit trailing were 35 Grade 1 students of Khon Kaen University Demonstration School, first semester of year 2008. Research instruments include 1) the integrated learning unit on “The Beautiful and Dignified of I-San Dialect” based on the PSE (or called the PSE I-San dialect Unit), 2) Learning achievement test, and 3) the desirable characteristic regarding on the PSE assessment form. Findings clarified the development of the PSE I-San dialect Unit and the effects of the unit trailing as follows.

1. The development of the PSE I-San dialect Unit could be explained as the process including analyzing content standard and learning outcomes for I-San dialect, synthesizing course description and concept mapping of the unit, and determined the name sub-unit. This process was developed regarding the process of language learning. The process of language learning consists of 5 stages including 1) awareness and value engagement, 2) construct meaning of the PSE, 3) conceptualization for PSE, 4) Thinking and Communicating, and 5) the development of ability.

2. The effects of the unit trailing showed very good outcomes of students’ learning achievement and desirable characteristic regarding on the PSE. Each aspect could be clarified as below.

2.1 It found that approximately 86 percents of students have got higher mean score of learning achievement than 70 percents.

2.2 It found that all students have got higher mean score of desirable characteristic regarding on the PSE than 70 percents.

Keywords: the philosophy of sufficiency economy, dialect, I-san, language
1. Introduction

The Ministry of Education had awareness and view the worthiness in practicing based on His Majesty the King’s “Sufficiency Economy.” Consequently, the policy in putting Sufficiency Economy Guidelines into instructional process in school by adding or integrating it with general instruction so that the students would be able to learn according to Sufficiency Economy Guidelines, and use it congruently with community lifestyle and villagers wisdom. As a result, they would be self independent including the lifestyle focusing on students’ thinking and living with the others with balance based on Sufficiency Economy Guidelines, seeing value of various resources, living with the others happily, being generous and sharing, including environmental conservation awareness among different changes, and being aware that they were one part of environment (Department of Academic, 2002).

Ladda Silanoy (2008) stated that according to research studies in education related to Sufficiency Economy Philosophy in Northeastern Region, including experience in providing the training, found that the schools didn’t develop knowledge management as systematically relevant to Sufficiency Economy. Specifically, the Sufficiency Economy which was promoted from every work unit which was caused by the teachers lacked of knowledge and comprehension in knowledge management based on Sufficiency Economy Guidelines. Consequently, the educational management wasn’t congruent with the students’ livelihood. So, they couldn’t find guidelines in solving problems of their own economic, family, and locality which were problems in educational management with the most efficient for students, community, society, and nation further.

Khon Kaen University Demonstration School (Mo Dindang), Elementary Level, situated at 123, Mitpap Road, Naimuang Sub-district, Muang District, Khon Kaen Province, Faculty of Education, Khon Kaen University, offered from Pratimsuksa 1 to Pratomsuksa 6. Now, the school curriculum 2002, was administered (Revised edition, 2005). There were problems in instructional management with shortage of emphasis on instructional management process of Sufficiency Economy in school, concretely. There were only project management in 8 learning substances which didn’t cover the Sufficiency Economy Philosophy in economic, social, environmental, and cultural aspects. They were not in concrete forms leading to clear instruction in classroom. We could see from the analysis of problem solving guidelines in school. According to direction of school potential development from self assessment report regarding to the students’ quality during 2007-2008, it was specified that the students should be emphasized on their characteristic and leadership in virtue and morality, sufficient livelihood. In addition, in instructional management, was determined that the curriculum management for developing one’s life skill as well as Sufficiency Economy.

According to the above rationale and principle, the researchers were interested in developing the integrated learning unit based on Sufficiency Economy Philosophy, viewing the value of wisdom in Esan Dialect, and helping in inheriting to be existed further.
2. **Research Objectives**

1. To develop the integrated learning unit of Sufficiency Economy Philosophy, titled “Esan Dialect, Beauty with Pride.”

2. To develop the learning achievement of students studied from learning activity management based on the Integrated Learning Unit based on Sufficiency Economy Philosophy, titled “Esan Dialect, Beauty with Pride.” The students not less than 80%, had learning achievement passing criterion for 70% and up.

3. To develop the desirable characteristic based on Sufficiency Economy Philosophy from integrated Learning Unit based on Sufficiency Economy Philosophy, titled “Esan Dialect, Beauty with Pride.” The students not less than 80%, showed their behavior of desirable characteristic passing criterion 70% and up.

3. **Research Methodology**

This research was an experimental research, for developing the integrated learning unit based on Sufficiency Economy Philosophy, titled “Esan Dialect, Beauty with Pride,” of Pratomsuksa 1/1 Students, including 3 research methodologies as follows:

3.1 **Target Group**

The target group of this study consisted of 35 Pratomsuksa 1/1 Students, Kho Kaen University Demonstration School (Mo Dindang), studying during the first semester of 2008 school year.

3.2 **Variable**

1. **Independent Variable**, included the integrated Learning Unit based on Sufficiency Economy Philosophy, titled “Esan Dialect, Beauty with Pride,” Pratomsuksa 1/1, Khon Kaen University Demonstration (Mo Dindang) School, by using 12 Knowledge Management Plans through language learning process.

2. **Dependent Variable**

   1) **Learning Achievement**, titled “Esan Dialect, Beauty of Pride,” of Pratomsuksa 1/1 Students, Khon Kaen University Demonstration (Mo Dindang) School.

   2) **Behavior of desirable characteristic based on Sufficiency Economy Philosophy** from the integrated Learning Unit based on Sufficiency Economy Philosophy, titled “Esan Dialect, Beauty with Pride,” of Pratomsuksa 1/1 Students, Khon Kaen University Demonstration (Mo Dindang) School.

3.3 **Research Design**

This research was an experimental research with One Shot Case Study.

3.4 **Instruments using in research implementation**
1. **Integrated Learning Unit**, titled “Esan Dialect, Beauty with Pride,” for Pratomsuksa 1/1 Students by 12 Knowledge Management Plans.

2. **Student’s Learning Achievement Test**, as 3 alternative multiple choices, 20 items.

3. **Evaluation Form of Desirable Characteristic Behavior**, as 3 Level of Practice Principle, Rating Scale. There were 4 aspects of characteristic evaluation item as: the economic practice principle, the social practice principle, the environmental practice principle, and 4) the religion and culture practice principle, 15 indicators, 15 items.

3.5 **Research phases in research implementation**

The research for developing the integrated Learning Unit of this study, was a learning unit development by integrating the material content, expected learning performance, and guidelines for living based on Sufficiency Economy Philosophy, using in knowledge management. The researcher classified the research methodology into 4 phases as follows:

- **Phase 1**: The study of related basic information.
- **Phase 2**: The implementation of learning unit establishment.
- **Phase 3**: The trying out and evaluation of learning performance.
- **Phase 4**: The evaluation of learning unit.

4. **Research Findings**

1. For the findings of integrated learning unit based on Sufficiency Economy Philosophy, titled “Esan Dialect, Beauty with Pride,” consisted of the phases in establishing the integrated learning unit as follows:

   Study and analyze the educational guidelines of Basic Education curriculum 2001, school curriculum of Khon Kaen University Demonstration (Mo Dindang) School, Revised Edition 2005

   Analyze the learning standard of class level, learning substance, expected learning outcome, of Thai Language Learning Substance, Social Studies, Religion, and Culture Learning Substance, and Art Learning Substance, related to Sufficiency Economy Philosophy by integrating as interdisciplinary for using as learning substance, creating the learning unit, and naming the learning unit.

   Determine the course description/Determine the major concept/sub-associating with content. concept map.

   Determine the learning unit/number Determine the knowledge of hours management process/media and measurement.
Write the knowledge management plan. Knowledge management plan by using language learning process.

Conclusions of Developmental Steps in integrated learning unit based on Sufficiency Economy Philosophy

- Step 1: Analysis of learning standard of class level.
- Step 2: Analysis of course description.
- Step 3: Determination of course description.
- Step 4: Determination of concept map.
- Step 5: Determination of learning unit.
- Step 6: Determination of learning activity management process.
- Step 7: Determination of media and learning origin.
- Step 8: Determination of measurement and evaluation.
- Step 9: Writing of knowledge management plan.

Figure 3: Findings of Analysis in integrated learning unit assessment based on Sufficiency Economy Philosophy, titled “Esan Dialect, Beauty with Pride,” were shown.

1. Analysis of curriculum for setting the learning unit.
2. Expected learning performance.
3. Learning process aspect.
4. Media and learning origin.
5. Measurement and evaluation.
6. Ability to apply in daily life.
7. All aspect average.

Figure 4: Process of language skill practice with 5 steps, was shown.

5 Steps of Process in Language Skill Practice

1. Create the awareness and know the worth of significance in conserving language wisdom in one’s own locality, from learning origin in community.

2. Understand the meaning of Sufficiency Economy, and Esan Dialect from symbol, media, picture, from literary story in Sufficiency Economy, and word puzzle in Esan Dialect.

3. Develop concept of Sufficiency Economy Philosophy.

4. Express the meaning and thought
5. Develop the competency.

**Step 1:** Create awareness and knowing the worth and significance in conserving the language wisdom in locality of one’s own learning origin in community.

**Step 2:** Try to understand symbol, media, picture, model, and sign,
Using activity model of systematic thinking technique by Edward de Bono’s 6 hats thinking process so that the students could be able to solve problem and make decision by thinking each aspect at a time systematically. So, the students improved their potentiality without jumping forward and backward, or thinking many things at the same time. As a result, they were able to think by not being confused. On the contrary, they concluded the issue of thinking in each item clearly by using literary work of story package in Sufficiency Economy in “Mushroom Village.”

**Try to understand the meaning of “Sufficiency Economy,”** from the story including picture and sound from story CD regarding to Sufficiency Economy, for 3 stories as follows:

1) The story “A crow wanted to be a stork,” be sufficient what one had (oneself).
2) The story “Mushroom Village,” be sufficient in expenditure (family).
3) The story “How much cutting for being sufficient,” be sufficient with environment.

**Try to understand the intonation of Esan Dialect from puzzle word “Kwam Tuay.”**

1) The organ/gesture group.
2) The utensil group.
3) The plant, animal, and nature group.

**Step 3:** Create concept of the meaning in Esan Dialect.
Using activity model for students to develop Mind Map as different symbols being represented for concept and comprehension in the meaning of Esan Dialect by integrating the whole information and developing new conceptual framework in one’s own practice as Mind Map by group working.

**Step 4:** Express the meaning, thought.
Using activity model in Esan Dialect Speaking by using folk song including Esan Dialect of Tai Orathai and Siripon Ampaipong, when the students understood the meaning each word or sentence of Esan Dialect, they were allowed to try to understand the text of a song including Esan Dialect. Then, they would communicate by making gesture in addition to their own thought.

**Step 5:** Develop one’s ability.
Using activity model of Esan Dialect Speaking Word from picture book “Esan speaking,” assigning the students to speak Esan intonation in group and individual correctly by using picture book “Esan speaking, package 1-3,” as follows:

1) Picture book Esan speaking, package 1, “Esan speaking in family.”

5. Conclusions and Discussions

1. The effect of integrated learning unit based on Sufficiency Economy Philosophy, titled “Esan Dialect, Beauty with Pride,” found that the process of development in this learning unit, was a good and quality process. When data were analyzed, the learning unit had Mean score = 91.89%. The implementation in developing the learning unit, included associated and related steps. It was supported by Paweena Poomdandin’s (2008) statement that the learning unit development was a good process needed to be implemented as follows: the analysis of learning standard, determination of course description, mind map, and the name of learning unit.

2. The findings of students’ learning achievement, according to the learning activity management according to integrated learning unit based on Sufficiency Economy Philosophy, found that 85.72% of total number of students, had their Mean score of learning achievement = 84.20%, passing the criterion since there was 5 steps of efficient training process as:

1) The step in creating awareness and knowing the value, using knowledge source in community to add for the component of learning unit to be more complete as: the usage of learning origin in community for creating the students’ direct experience. The information of learning source in community, was Khon Kaen Honge Moon Mung Muang as a tower using for keeping the asset collecting stories or legend of Khon Kaen City, and Nongwang Temple (Kannakon Pramaha Dhat or nine floors Pra Dhat). It was supported by Paweena Poomdandin’s (2007) statement that the learning unit development could cause the students to have their learning achievement, and application of Sufficiency Economy Philosophy in their daily life, as specified criterion.

2) The step in trying to understand the meaning of Sufficiency Economy Philosophy, and Esan Dialect, according to symbol, media, picture, from 3 stories of story literary work of Sufficiency Economy Philosophy, and Puzzle Word in Esan Dialect, enhanced the analytical thinking process and creative thinking by using 6 hats questions to stimulate the students’ enthusiasm in studying very much. It was supported by Wilasinee Kaoyoata’s (2008) statement that using 6 hats questions, and writing mind map could lead to higher level of effects in reading, thinking, and writing skills.

3) The development of concept in the approach based on Sufficiency Economy Philosophy, using activity for assigning the students to draw Mind Map in different symbols, found that the students who had creative work performance, could organized their thought perfectly. It was supported by Prapensri Kraianupong’s (2006) statement that the activity development using Mind Map, could help the students to obtain higher level of learning achievement in creative writing.
6. Recommendations

6.1 Recommendations for Finding Application

1) The application of Sufficiency Economy Philosophy in leading to instructional management of school system, to consist of the study of learning standard, expected learning outcome, learning substance, in Basic Educational Institutes relating to Sufficiency Economy Philosophy, determination of topic in performing the learning unit of Sufficiency Economy, learning substance, expected learning outcome, as related to Sufficiency Economy. The organizer of learning unit had to consider that which model would be used by them, including: the additional integration, integration within learning substance group, and integration between learning substance groups, which would make the learning unit of Sufficiency Economy be interesting.

2) Writing of knowledge management plan, by activity management in instruction as student-centered, which model to be used would depend on each topic of learning substance, so that the students would obtain knowledge and understanding, skill, and good attitude towards instructional management process.

3) Instructional activity management by using language learning process, there were indispensable activities as follows:

   The step in creating awareness and seeing the value, by using learning source of community. The teachers should prepare learning origin as local wisdom culture as well as language wisdom to be appropriate with learning unit and congruent to the instructional activity. They should also prepare their students to be ready for field trip study so that the students would know the worthy, impression, and value of their own local culture.

   The step in trying to develop the understanding in meaning of Sufficiency Economy, and Esan Dialect, the teachers should use questions from the interesting read chapter, for instance, tale, literary work, and literature. They would be questions stimulating the students’ analytical thinking and creative thinking very much.

   The step of concept development in the approach based on Sufficiency Economy Philosophy, in order to organize their own body of knowledge. The teachers could use Graphic organizers in various forms to be appropriate with the students’ competency level.

   3.4) The step of expression in meaning and thought by using contemporary folk song. In competency development step by using pictorial book, for the students who couldn’t speak Esan language, the teachers could train them continuously, repeatedly, and regularly. Consequently, the students would know the word and sentence in Esan Dialect as series which would lead to spoken skill of Esan Dialect at the end.

6.2 Recommendations for future research

1) The learning unit based on Sufficiency Economy Philosophy with relevant with strength in their own local area, should be developed.
2) The effect of knowledge management based on Sufficiency Economy Philosophy in locality, on the variables in economic, social, environmental, religion and cultural aspects, should be studied by intensive study with each variable concretely.

3) The integrated learning unit based on Sufficiency Economy Philosophy in other class levels, should be established in order to develop the students’ behavior in sustainable desirable characteristic based on Sufficiency Economy Philosophy with strength, further.
The development of the student supporting system that affect to student quality in Prajaksilpakom School, Prajaksilpakom District, Udonthani Province

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ABSTRACT

The purposes of the research were: 1) to study the practice of the student supporting system; 2) to create the innovations for develop in the student supporting system; and 3) to study the outcome of the innovations. The study had 3 phases as follows:

Phase 1: The study results from 18 advisor teachers were the practices of the student supporting system moderate level and 4 aspects of practice which were at the lowest level were (1) The practice process to resolve student problems and to develop student potentiality, (2) The development of teacher on the skills of observation, listening, interview and counseling techniques, (3) Monitoring supervision and evaluation and creation of working morale among advisor teacher and working personal and (4) Development activity matching students aptitude, interests, ability and development including the physical and emotional limitation of students.

Phase 2: The study results from 18 advisor teachers, 10 student parents, 6 school committees, 2 supervisors, and a counseling teacher were 3 activities to be implemented. The first was the first was the process of student supporting system development activities, the second was advisor teacher development activities and the last one student development activities.

Phase 3: The study results from 18 advisor teachers and 84 problem students were (1) The school had the process of student supporting system matching school contexts, (2) The practice of the student supporting system higher with significant statistic level at .01, (3) Advisor teachers had knowledge, understand of student supporting system higher with significant level at .01 and satisfy in all activities of teacher development and (4) The student qualities all respects met the standard requirement higher with significant level at .01, higher achievement, the number of problem students were decreased with significant level at .01 and satisfy in all activities of students development

Keywords: Student supporting system, Student quality.
Program development on the student supporting system in Prajaksilpakom School, Prajaksilpakom District, Udonthani Province

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ABSTRACT

The purposes of the research were: 1) to study the program demand on student supporting system in PrajakSilpakom school; 2) to create the program of the student supporting system; 3) to study the outcome of the implementation of the program of the student supporting system in PrajakSilpakom school; 4) to develop the program of the student supporting system and 5) to study the outcome of the implementation of the program of student supporting system in 31 schools Udonthani Education service Area office 2. The study consisted of 5 phases. The findings were:

Phase 1: The study of demand on student supporting system in 4 respects matched the needs of 18 advisor teachers in PrajakSilpakom School at a high level.

Phase 2: The creation of student supporting system consisted of 4 main systems and 12 sub-systems.

Phase 3: The target groups consisted of 18 advisor teachers had a high satisfaction toward the program on student supporting system and 5 the program development experts highly approved the efficiency of program in all respects.

Phase 4: The further development of the program consisted of 4 main systems and 12 sub-systems as well as phase 2 except 6 sub-systems requiring improvement.

Phase 5: The target groups consist of 31 administrators, 31 network supervisors and 198 advisor teachers had a high satisfaction toward the program of student supporting system.

Keywords: Program development, Student supporting system.
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