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## Integrated Learning Teacher Professional Development in Primary Schools.

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### Abstract

This study was aimed to compare the skills of teachers to manage integrated learning, before and after the development and the achievement of students who have been integrated learning activities which is higher to 70 percent of the target group; the group consists of 13 teachers, 146 students, with the total number of 159 people. This study was based on the concepts of Kurt Lewin which has four steps: plan, action, observe, and reflect. These following tools were used to collect data: questionnaires, interviews, observation, and tests; they were used to analyze the data for basic statistics, including percentage, mean, standard deviation, data analysis using SPSS, to determine the basic statistics.

The results of this research are as follow:

1. The skills of teachers to manage integrated learning before and after the development have resultant statistics at 0.05, significantly.

2. The achievement of students who have been learning integrated activities was risen to 75 percent.

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### 1. Introduction

His Majesty King Bhumibol Adulyadej had delivered his royal speech at the graduation ceremony for graduates of Srinakharinwirot University on Wednesday, June 29, 1977, “education is the most important, because it molds the forms for the next generation in knowledge, talent, and spirit...” which shows that he saw

the importance of education as a tool to build public the knowledge, ability, and nice mental attitudes, because education is the most important fundamental to create success and solve problems in the society. (Office of National Education, 1997) In conjunction with the National Education Act, 1999 and amended edition (No.2) In 2002, defining the purpose and principles of education in Chapter 1, Section 6 stated that “Education must be to develop Thais to be a completed human in physical, intellectual and moral, ethical, and cultural life, and can coexist happily with others. In Section 8, education instruction was established with three elements as following: (1) long life education for public, (2) society can participate in education, (3) development in issues and procedure of learning has to be ongoing (Department of Education, 2003) Particularly the National Education Act 1999, as amended (No.2) Act, 2002 in Section 22 discussing the education that every student has the ability to learn, develop to their full potential as learners naturally, and student-centered. Section 23 states that education must emphasize the importance of moral knowledge learning process, and appropriate integration for each level of education.

From the two sections, educational management focuses on learners with the balance of Child-centered; this will help learners to have self-development naturally and potentially. Learning management emphasizes on thinking skills, management skills, real-situation skills, and integration to prevent and to solve problems by providing activities that students can experience real situations. By blending everything together, as mentioned, is for learners to naturally learn and to understand meanings of life (Chun Praphon Chat Post new facilities. 2003).

Problems and obstacles in the development of curriculum and learning process is the administrators, teachers and lack of experience, understanding, knowledge, and ability to bring integration into schools’ curriculums ( Office of Standards and Quality Assessment, 2007), which everyone is aware of the importance of bringing integration into learning management in schools to be able to lead to life style with moral knowledge for learners to follow; for themselves, family, communities, and the country to move forward with balance, stability, and which will be the approach and process for a peaceful coexistence between human to human and human to nature sustainably.

As a school principle, researcher is very interested in researching “Teachers’ integrated learning development by Huay Yang School, Office of elementary Khon Kaen Area 4 by using the process of research according to Kurt Lewin (1988) with four steps: plan, action, observe, and reflect. These steps leads to results of this research which are information management to improve management and learning in schools for effectiveness and potential due to the intention of education and information management for whom involved to integrate and apply to make advantages in education later on.

## **2. Research Objectives**

- 1) To compare the skills of teachers in the integrated instruction between before and after development.
- 2) To enhance students’ achievements after integrated learning to 70 percent higher.

## **3. Methodology**

1) Targets: the targets for this research are teachers and students: 13 and 146, respectively. The total population for this target group is 159 people.

2) The form of action research: form of action research in this research process by using the concepts of Kurt Lewin; his 4 steps are plan, action, observe, and reflect. The process is divided into 2 phases:

- The research in phase 1 proceeds the studies about teachers' knowledge, understanding, and integrated learning since April 1, 2012 to May 31, 2012.

- The research in phase 2 proceeds the studies about teachers' potential of abilities for integrated learning since June 1, 2012 to August 31, 2012.

3) Tools used in the research: the tools are divided into 4 types: questionnaire, interview and observation, knowledge test for teachers after the development, and student achievement test.

## 4. Findings and Discussions

### 4.1 Findings

Teachers' development in integrated learning in Ban Huay Yang School, Office Khon Kaen Primary Education Service Area 4 has 2 summaries as follow:

1) The difference of learning management skills in integrated instruction before and after the development is significantly at .05

2) The achievement of students who have been integrated learning has increased 75 percent.

### 4.2 Discussions

Huay Yang School has proceeded to develop teachers at integrated learning related to Education Act of the National Budget, 1999 and the edition (No.2), 2002. The government policy, Education Ministry, schools have faced problems and the needs of each school, because the policy in education policy, particularly in the teaching of the school which was performed by all staff and board members of the school's basic education. Participation in policy planning and analysis approach to education, as defined in the National Education Act 1999, as amended (No.2) Act, 2002. Policy framework of the government, Ministry of Education, and a survey of current conditions; the problems and needs of the school were assigned to be policy to actually take actions and bring the results of administration and learning management which found that integrated learning can interest students and students can learn happily with higher scores for achievement. In order to develop teachers' integrated learning management, every teacher must have ability and experience to manage the integrated learning. When the school has carried on which the innovation has been driven in learning by using integrated of teaching and research.

Teacher development and integrated learning by utilizing research-based concepts of Kurt Lewin (1946) with 4 steps comprising the plan, action, observe, and reflect. The process has 2 phases: phases 1 and 2. Research phase 1 proceeded studies about potential of teachers' knowledge, understanding, and integration into learning since April 1, 2012 to May 31, 2012. Research phase 2 preceded the studies of teachers' potential in their ability to manage integrated learning since June 1, 2012 to August 31, 2012 by workshop, educational meeting, and supervision to develop teachers' knowledge and understanding. All knowledge, understanding and ability have been put into local learning and integrated with practical learning inside school which can be discussed as follow:

1.1 Skills for learning with integration of instructor after development, which before and after development has significant difference in statistics at 0.05 which related to Mulin ( Mulin, 2002: 2731 – A) which studied about case study of student in first year with integrated technology in curriculum and assessment which found out how education with IT of new teacher focuses on nature and scope of IT use of new teachers have relation with integrated. By spending 3 months period of time to question, observe, and collect data from field research; for example, classroom observation, interview students' work which 2 teachers with potential of IT and 2

teachers with no expertise in IT led to the result that IT skilled teachers can deliver knowledge of IT more than non-expertise IT teachers. From the information found that there was only one teacher who could really use IT which related to hypothesis of the research that the IT integration was not used in new teachers. Preparation of IT for lessons and assessment, the research brightened us that the use of IT and internet are low, especially in learning program, and internet for presentation. The result presents new ideas to curriculum administrators and presents new path of research in the future. Watamura's work ( Watamura. 2001: 1279) had presented comparison between two types of math; the type that students are the center which implied in two classroom of the primary school which has some group that teaches by considering student-centered, but some group likes to directly give out knowledge. From the research, the studies of brain and learning process took place and the conclusion was that direct teaching to students emphasizes on academics only without linking other knowledge along which is the opposite of student-centered that gives students a broad view of knowledge and can be connected to new knowledge in the world better.

1.2 The achievement of students who have been doing integrated learning activist is 75 percent higher and connected to King's research ( King. 2004: 3179-A) which studied achievement in math learning of 8<sup>th</sup> grade students. Basic algebra between integrated-learning students that has 3 types, including direct teaching, excellent emphasizes, and cooperative learning. With the control group taught by using the lecture method, the result found students with integrated learning style has higher scores than the control group students.

The study also found that integrated-learning students can show the work of action better than lectured students. Furthermore, Martin ( Martin. 2006: 3201-A) found that the integrated learning system in the organization and the individuals affected attitudes, achievement in mathematics, and this study compared the results of success, attitude, and behavior of students (aged 16-21 years old) In grade 9-13 of high school, learning mathematics by using integrated learning system cooperatively and individually were studied. This study consisted of students in urban public schools in Miami- Dade by using pre-test and post-test. Researchers measure success by using test of Adult Basic Education of CTB McGaw- Hill and Compass Learning, and attitudes towards mathematics subject were measured, along with relation of computer lesson, and attitudes toward activities. Researchers assessed and observed computer-use behavior in laboratory. Statistical analysis in research using statistical two-way ANOVA to analyze the success of group and time ( the pre-test and post- test), one-way ANOVA to analyze the overall attitude of the five elements such as the content, mathematics, computing, collaborators, partners, and individual performance in group behavior in workplace. The research resulted integrated learning, cooperative work, and individuals in mathematics activities that there is a relation between students cooperation and subject attitudes in a better overall picture of students working individually.

Moreover, Chuang (Chuang. 2003: 320 – A) found the relation between information literacy of middle school teachers and information technology integration into the curriculum in Taiwan which the relationship was studied. Information literacy education of teachers in junior high level, the extend of integration of information technology into the curriculum, and the relationship between the two things above; research shows that the level of information literacy, teachers are moderate extent of integration of information technology into the curriculum at the middle level and a high degree of teachers in middle school present the integration of information which dedicates the ability of information literacy of teachers that affects camphor. Integrating technology into the curriculum, the study suggests that Taiwan's junior high teachers' information literacy should be integrated into the lifelong learning in order to expand its capabilities in information literacy into various curricula.

The study included that research on human resource development is vital and much needed organizations to achieve the targets set by quality work- personnel with knowledge, understanding, the skills and expertise in operation. The effective teaching process requires preparation, the implementation of the teaching role, the

practicality rather than memorization; teachers and students would not cooperate in the process of teaching and evaluation. Teachers must be up to date and cognizant of the changes in technology. Teachers in developing learning management of integration are necessary in the current situation due to the advancement in various fields which is fast. Teaching knowledge needed to come up with students to be knowledgeable in many aspects, simultaneously apply their knowledge to use in daily life, immediately timeliness, solve problems in everyday life, and development. Therefore, the teachers must have the skills, the care in integrated learning activities, and consistency. Supervision of teaching methods requires the participation of multi methods and multiple parties due to Education Reform Law of National Education Policy of the principles which are the most important lesson learned- integrated management; the knowledge was brought up from different subjects with balanced blend together. Focusing on learning the learner is truly important; students develop their own potential in all aspects and it is essential that those involved in educational process such as teachers and supervisory personnel must develop a strategy in line with the reform of learning.

The results of this research, information leading to the development of the next task which to provide information for schools and other agencies related to teaching and learning, can be applied in an integrated learning management efficiently and effectively to the school and country.

## 5. Recommendations

### 5.1 Recommendations for research use

1) The results of the study revealed that teachers have knowledge and are ready to use in all stages of learning. This issue will give teachers the ability to manage the learning to promote learning and development of students and desirable learning.

2) The results of the conducted research determine the selection of learning materials and learning resources which are consistent with learning content and learning activities, derived from the integrated learning evaluation plan. The conditional knowledge (knowing caution) is clear, which helps promote learning and develop desirable feature of integrated students and can be used in everyday life as a role model to the community and society.

### 5.2 Recommendations for the preparation of research reports.

Next time, reports should be prepared in the research about the process of learning and integration to discriminate the learning courses or individual subject to receive information of teachers' knowledge, understanding, and ability to integrate and to bring integration to detailed learning. Purpose establishment of research must focus on the potential of learning process, learning achievements, and development of desirable students to result integrated learning in school and be applied truly in real life.

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