

A Training Course Development to Promote Learning Activities of 2nd Year, Faculty of Education Students using Multiple Intelligences Theory

Chaiwat Waree, and Kalanyoo Petcharaporn

Abstract—This research aims to develop and evaluate a training course to promote learning activities of 2nd year, Suan Sunandha Rajabhat University, faculty of education students using multiple intelligences theory. The process is divided into two phases: Phase 1 development of training course to promote learning activities consisting of principles, objectives of the course, structure, training duration, content, training materials, training activities, media training, monitoring, measurement and evaluation quality of the course. Phase 2 evaluation efficiency of training course was to use the improved curriculum with experimental group which is 2nd year, Suan Sunandha Rajabhat University, faculty of education students was drawn randomly 152 students. The experimental pattern was randomized Control Group Pre-Test Post-Test Design, Analysis Data by t-Test with the software SPSS for Windows. Research has shown that: 1). the ability of teaching and learning according to the theory of multiple intelligences after training is higher than before training significantly in statistic at .01 level, 2). The satisfaction of students to the training courses was overall at the highest level.

Keywords—A training course, learning activities, multiple intelligences.

I. INTRODUCTION

ROYAL words concerning to Thai language year 1962 – 2008, Research Center for Community Happiness, Assumption University (ABAC) conducted research on the topic "Knowledge and understanding of Thai citizens concerning to Thai Language and problems of using Thai language" sampling from age 18 years in Bangkok and vicinity of 2,452 people found that 21.5% did not know how many characters were in the Thai alphabets (44 characters), 86.7% did not know how many Thai vowel (21 vowels) and 73.7 percent did not know how many Thai tone mark (4 Figures 5 tones), 92.4 percent do not know what essay is, 89.6 percent do not know what poetry is [9].

To encourage the students to be competent in Thai as a tool for learning other subjects Rajabhat universities all over the country have increased the importance of Thai. Thai language is to be studied in the 1st year by the subject matter and universities will use as a basis for teaching students of all faculty to establish a baseline reading, thinking and a strategy for further study. A conference analysis of curriculum and

defining Thai language course of Rajabhat University, curriculum development centre has pointed out that the current condition course today aims to provide students with the skills of listening, speaking, reading and writing are related, emphasizing on understanding the high level of Thai, encourage reading habit, a desirable feature for studying Thai literature and culture [13]. The teaching Thai according to university course has been criticized in the present, even Thai is mandatory subject all students must study, but found that the students of Thai language achievement scores are low and unsatisfied [14] and the results of the study and analysis of University Affairs and the study of the [8] found that subjects that students are most not interested in is Thai language due to the difficulty of the course content and teachers teaching style, students attitude and behavior. Students think that learning Thai literature, poetry, and advanced is not utilized on a daily basis, so they do not pay attention on and do not see the importance of Thai.

Country development plans by National Economic and Social plan No. 10 [3] on the basis of strengthening the capital of the country, social capital, the creation and development of children and young people are ready together with the intelligence, emotion and moral under education system that aims to learn both practical and academic. The development of children starting in pregnancy mother until born to growth properly and ready to learn by creating the knowledge understanding to parents in taking care of their health and child development from birth through mental, emotional and social consciousness to provide them to think and analyze reasonably understanding and control their own properly and know their own existing capabilities.

Psychologists and educators have studied the human brain to understand the nature, function and performance because individual brain capacity is different [1] and the ability to learn and work is different. The related studies should try to understand the potential of existing students to help and encourage them to learn. When a teacher or parent understands their students, they will teach and encourage students to learn according to their ability and intelligence. Psychologist, Howard Gardner [4] has proposed the theory showing that anyone can develop wisdom and believed that the wisdom of the human doesn't have only one but eight intelligences. His theory is called "The Theory of Multiple Intelligences: MI" The 8 intelligences are logic and mathematics, dimension, body and movement, music, human relation, understanding oneself. Individual intelligence will

C. Waree is with the Faculty of Education, Suan Sunandha Rajabhat University, Bangkok, 10300, Thailand (phone: +6686-077-5746; e-mail: chaw_w@hotmail.com).

K. Petcharaporn is with the Faculty of Education, Suan Sunandha Rajabhat University, Bangkok, 10300, Thailand (e-mail: kakarap2000@yahoo.com).

vary, people who have high intelligence in any one of eight may be poor in another. Gardner still explained that the difference in environment and culture will reflect the difference in brain performance as well. The theory of multiple intelligences has changed the teacher's thought in managing concept of learning to match with student's intelligence. In addition it brings the students to develop themselves to be good and happy in society and ready to be benefit society onwards [11].

Chanpen Chooprapawan and Ladda Morsuwan [10] have conducted a long-term research on wisdom of students between ages 6-12 years, mean IQ. equal to 91.2, indicating that the wisdom of Thai children has lower mean than normal. Students who have IQ higher than 110 students is less than 10%, which may result from parents who do not know how to develop the brain potential of their children and the teachers do not emphasize the development of wisdom in other ways.

Way to encourage teachers to manage teaching according to the theory of multiple intelligences to benefit the development of the learner is essential. Students can develop their full potential; education can be transformed into a sustainable process of teaching and learning. Training is one way to promote the education of teachers to provide for long life learning. The training is part of the development process, knowledge, operational skills, individual attitudes which causes a change in behavior in a constructive way [7].

To develop students faculty of education and in line with policy of the Office of Graduate Education and in accordance with Section 8 of teaching and learning in and out of the education system, Suan Sunandha Rajabhat University has conducted a training program to promote the teaching and learning of 2nd year, faculty of education students using multiple intelligences theory to prepare the readiness of training teachers to be efficient and meet the objectives and develop students to have desirable characteristics to be potential teachers in the future.

II. RESEARCH OBJECTIVES

- To develop a training course and promote learning activities of 2nd year, Suan Sunandha Rajabhat University, faculty of education students using multiple intelligences theory.
- To determine effectiveness of a training course to promote learning activities of 2nd year, Suan Sunandha Rajabhat University, faculty of education students using multiple intelligences theory.
- To determine student's satisfaction to the training course to promote learning activities of 2nd year, Suan Sunandha Rajabhat University, faculty of education students using multiple intelligences theory.

III. RESEARCH BENEFIT

- Gain a future training course to promote learning activities of 2nd year, Suan Sunandha Rajabhat University, faculty of education students using multiple intelligences

theory as a framework or guidelines for the management training of students

- Gain a user manual for a training courses to promote learning activities of 2nd year, Suan Sunandha Rajabhat University, faculty of education students using multiple intelligences theory
- Gain useful information for the University to improve and develop a training course
- Gain guidelines and procedures in training and capacity building for teaching and learning for students

IV. RESEARCH FRAMEWORK

This research aims to develop a training course to promote learning activities of 2nd year, Suan Sunandha Rajabhat University, faculty of education students using multiple intelligences theory together with process of curriculum development based on the concept of Taba [5] as follows;

A. Diagnosing of Needs

Diagnosing of needs is to survey the problems, needs and necessity of society and learners

B. Formulation of Objectives

Formulation of objectives is to set up goals to make it clear after diagnosis of the needs of society and the learners

C. Selection of Contents

Selection of contents is to select material to suit with the purposes, the ability of the learner, the content must be reliable and a key to learning.

D. Organizing of Content

Organizing of content is to use the selectable content and ponder the continuity and the difficulty of the content, maturity, ability and interests of learners.

E. Selection of Learning Experiences

Selection of learning experiences that teachers who were involved will select learning experience to cope with the content and aim of the course.

F. Organization of Learning Experience

Organization of learning experience based on the content and continuity.

G. Determine What to Assess and Assessment Method

Determine what to assess and the assessment method is to decide, what needs to be evaluated to determine the achievement of the goals, and determine whether how to use the assessment method, which tool which can be written in the following diagram.

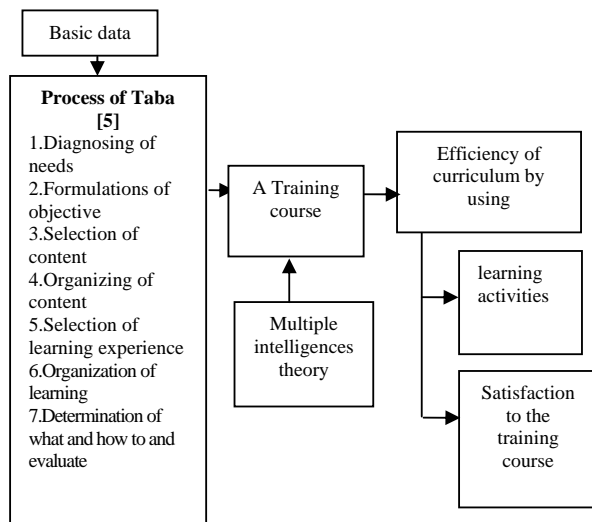


Fig. 1 Research framework

V. RESEARCH SCOPE

This research aims to develop a training course to promote learning activities of 2nd year, Suan Sunandha Rajabhat University, faculty of education students using multiple intelligences theory. Scope of the research is as follows;

- o Population used in this study, 245 of 2nd year, Suan Sunandha Rajabhat University, faculty of education students using multiple intelligences theory
- o Samples used in this study were derived from a systematic sampling of 152 students (From the Krejcie Morgan table).
- o Variables used in the study. 1 Independent variables are based training course to promote learning activities of 2nd year, Suan Sunandha Rajabhat University, faculty of education students using multiple intelligences theory 2 Dependent variables are 2.1 The ability to manage teaching and learning 2.2 The satisfaction of the students on the course.

VI. CONCLUSIONS

A training course development to promote learning activities of 2nd year, Suan Sunandha Rajabhat University, faculty of education students using multiple intelligences theory shows;

A training course development to promote learning activities of 2nd year, Suan Sunandha Rajabhat University, faculty of education students using multiple intelligences theory based on concept of Taba [5] is a key component of the course has been organized into the following training courses and the importance of the principle objectives of the course, the structure of the course, content of the training courses, training duration, training activities, training procedure, trainers, media training and monitoring, measurement and evaluation.

The quality of the training course to promote learning activities of 2nd year, Suan Sunandha Rajabhat University,

faculty of education students are using multiple intelligences theory. The experts found that the overall course has the highest quality, follows by content of the course, training duration, monitoring, measurement and evaluation, documentation for the purpose of the course curriculum, the structure of the training materials which is the highest level, the training activities and principle respectively.

The content of training course based on the concept of cooperative learning to enhance their ability to use Thai for

TABLE I
EVALUATION RESULT OF A TRAINING COURSE DEVELOPED TO PROMOTE LEARNING ACTIVITIES OF 2ND YEAR, SUAN SUNANDHA RAJABHAT UNIVERSITY FACULTY OF EDUCATION STUDENTS ACCORDING TO MULTIPLE INTELLIGENCES THEORY BY THE EXPERTS

Item	Mean	SD	Result
1. Principle	4.40	0.35	High
2. Course objective	4.64	0.45	Highest
3. Structure	4.60	0.29	Highest
4. Training duration	4.80	0.45	Highest
5. Content	4.84	0.33	Highest
6. Training activities	4.43	0.51	High
7. Media training	4.60	0.55	Highest
8. Monitoring, measurement & evaluation	4.80	0.27	Highest
9. Document	4.79	0.36	Highest
Average	4.66	0.40	Highest

education students, Suan Sunandha Rajabhat university is divided into four units, unit 1 is multiple intelligences and teaching and learning management, Unit 2 is Knowledge of the multiple intelligences theory, unit 3 is activities that help develop learning according to the theory of multiple intelligences, and unit 4 is abilities to adapt multiple intelligences theory to teaching practice.

The activity based training course to promote learning activities of 2nd year, Suan Sunandha Rajabhat University, faculty of education students according to multiple intelligences theory is as follows: (1) a familiarity with the game (2) pre-training test, attitude towards teaching by the theory of multiple intelligence (3) conduct training course to promote learning activities of 2nd year student faculty of Education of Suan Sunandha Rajabhat University by multiple intelligences (4). post test after the training attitude towards teaching by the theory of multiple intelligence.

The technical training course is to promote learning activities by lecturing, group discussion, brainstorming, games, practice and group relation. Media training courses to promote learning activities, manual for the training, cross-head projector, computer and Power Point, documents for training, exercise, equipment, test and evaluation.

Measurement and evaluation of the training course were in 2 parts; knowledge and attitudes. Knowledge was measured and evaluated by tests. Attitude was measured and evaluated towards the training course before and after training.

The study shows ability score to manage teaching and learning of the students according to the theory of multiple intelligence before and after the trial a training course. The mean before trial the training course is 24.88 which is 35.54%, SD is 3.26 and mean of ability score to manage teaching and

learning after trial the training course is 61.30 which is 85.57% and SD is 1.88 respectively.

TABLE II

MEAN AND STANDARD DEVIATION OF ABILITY SCORES TO MANAGE TEACHING AND LEARNING OF THE STUDENTS ACCORDING TO THEORY OF MULTIPLE INTELLIGENCES BEFORE AND AFTER THE TRAINING

Ability to manage teaching and learning according to MI theory	Full score	Mean	Percentage	SD
Before trial the training course	70	24.88	35.54	3.26
After trial the training course	70	61.30	85.57	1.88

Comparison ability scores to manage teaching and learning according to the theory of multiple intelligences before and after the training course of 152 students by t-test analysis is equal to -166.13, which is statistically significant at .01 level, this means that ability scores to manage teaching and learning before and after the training course are different. The ability score to manage teaching and learning of students according to theory of multiple intelligences after the training course giving higher score than before trial the training course is statistically significant at .01 level.

The study towards teaching and learning according to theory of multiple intelligences after training overall is in high level. Mean and standard deviation are equal to 4.46 and 0.68 respectively. When considering in each aspect, it was found that the students want to have this training to enhance the other side of their potential. This mean was the highest at 4.84 with a standard deviation of 0.42 and most attitudes are in high level.

TABLE III

COMPARISON ABILITY SCORES TO MANAGE TEACHING AND LEARNING ACCORDING TO THE THEORY OF MULTIPLE INTELLIGENCES BEFORE AND AFTER THE TRAINING COURSE

Evaluation	Number (students)	Mean	SD	t
Before trial the training course	152	24.88	3.26	-
After trial the training course	152	61.30	1.88	166.13**

Significantly in statistic at .01 level

VII. DISCUSSION

The development of a training course to promote learning activities was comprised by defining the aim of the course, defining content of the course, organizing of content, defining time duration, selection of experience, organizing experience, organizing a training, determining what to be evaluated and evaluation methods. This is in line with the Taba [5] which proposed the process of curriculum development as follows: (1) diagnosing of needs (2) formulation of objective that society needs (3) selection of content and knowledge that teachers need to teach (4) organizing of content (5) selection of learning experiences to complete and consistent with the objectives (6) organize the sequence of process and improve the learning experience (7) evaluation.

TABLE IV

MEAN AND STANDARD DEVIATION OF THE ATTITUDE SCORE TOWARD TEACHING AND LEARNING ACCORDING TO THEORY OF MULTIPLE INTELLIGENCE AFTER TRIAL THE TRAINING COURSE

Attitude toward teaching and learning according to MI theory	Mean	SD	Result
1. Description of document clear and easy to understand	4.38	0.65	high
2. Students understand content in the course	4.33	0.67	high
3. Lecturer explains clearly and properly	4.78	0.56	highest
4. Lecturer giving chance to ask question	4.67	0.60	highest
5. Students participate in activities	4.00	0.80	high
6. Course activities are interesting	4.73	0.50	highest
7. Students can apply knowledge to manage teaching their own	4.31	0.70	high
8. Students are in practical training	4.27	0.69	high
9. Students gain knowledge based on actual need	4.33	0.71	high
10. Students want to have this training to increase potential in other side	4.84	0.42	high
Average	4.46	0.68	high

Experts found that the overall quality course is in the highest level. And result of quality evaluation of training course after trial is in high level in overall which corresponds to [13] noted that the course consists of four components: general purpose and particular objectives of each subject, content and number of teaching hours of each subject, evaluation of the teaching curriculum.

Result of using a training course to promote learning activities using multiple intelligences are as follows: (1) creation of familiarity (2) pre-training test, (3) training (4) the test after training which is in accordance with Somchart Kitchanyong [6] noted that the training or management training program consisting of: (1) preparing a pre-training, analysis need for training, finding need in the training, developing of course content, defining and invite speakers, Selecting training methods and media, contacting training facility, sending invitation to the trainee and preparing document for the training (2) preparing for the opening day of training is to prepare venue such as seating and labeling, list of trainee, preparing visual and sound system such as audio recording, lighting systems, cooling system (3) management during the training and closing date, providing staffs, coordinating with all facilities (4) process after the training is completed, an evaluating report of the training, training report to be sent to the office.

A comparison of the mean in managing teaching and learning of students according to theory of multiple intelligences before and after the training is different. The ability score to manage teaching and learning of students according to theory of multiple intelligences after training is higher than before training at a statistically significant level of .01 which is in line with Alexandra [2] studied, which studied the effects of training in social studies classes on the achievement and ability in the analysis of secondary school students found that students who have studied by cooperation learning method is higher than those by traditional method at a statistically significant level of .05. Students who had

studied social studies by training method had ability score in analysis higher than those by traditional method at a statistically significant level of .05. This is in line with Fred [12] who developed a training camp learning the basics of music, dance and drama to develop relationships of students in Maryland. This model features a class dividing students into small groups; group of two students after that dividing groups of 3-4 and 5 students, respectively.

Students' attitudes towards teaching and learning according to theory of multiple intelligences after the training is at high level; students had more opportunity to gain success in teaching and learning because students had a way of learning to develop their potential consistent with the theory of multiple intelligences, which aims to promote the ability of students in all aspects. This theory takes into account the potential of students with different abilities or intelligence in a combination of intelligence. The theory of multiple intelligences and learning affects the learning and teaching of the teachers, giving students a positive attitude in learning to effective learning. Because the theory of multiple intelligences teaching is to develop the ability of each aspect of student, including language, logic and mathematics, analysis, interpretation, identification. Students can learn and develop their potential in all aspects according to individual abilities.

VIII. RECOMMENDATIONS FOR FURTHER RESEARCH

- There should be a study to monitor a course in the long run and after each institute has used the course, to determine whether the participants are developing and changing their teaching according to theory of multiple intelligence
- There should be curriculum development by combining the techniques and activities in other formats to find the style of training that is appropriate for different contexts
- There should be curriculum development with students in other faculties according to theory of multiple intelligences

REFERENCES

- [1] D. Baron, & W.B. Harold, Evaluation technique for classroom teacher. New York: McGraw – Hill Book Company, Inc 1995.
- [2] E. A. Alexandra, The Effect of Constructionism Learning in the Social Subject on Student Achievement and Analysis Thinking. Dissertation Abstracts International. 51 (November) 2004.
- [3] G. O. Young, "Synthetic Ministry of Education" Conceptual Approach and Assessment of a New Alternative According to the Fundamental Education Program, Bangkok. 2001.
- [4] H. Gardner, August 15. Intelligence in seven steps. (Online). Available URL: http://www.newhorizons.org/future/Creating_the_Future/crfut_gardner.html 2005.
- [5] H. Taba, Curriculum Development: Theory and Practice. New York: Brace & world, Inc. 1972.
- [6] K. Somchart, Effective Technique in Organizing Training. Bangkok. 2003.
- [7] L. Seri, Administrative skill and behavior of primary schools' principles after a training, Thesis of Graduate school, Silpakorn University. 1999.
- [8] Ministry of Education. Conceptual Approach and Assessment of a New Alternative According to the Fundamental Education Program, Bangkok. 2001.
- [9] Ministry of Education Fundamental Education Program, year 2008 No.2, Bangkok. 2009.

- [10] R. N.Rinee, Research shown Thai Children are Growing and Stupid. Matchon newspaper, p.18.2003.
- [11] R. Peera, Application of the Multiple Intelligences Theory to Reform Learning Process, Bangkok. 2001.
- [12] S. Fred, The Constructionism Learning in the Music, Art to Development of Student's Relationship. . Dissertation Abstracts International. 67 (June) 2005.
- [13] S. Narongrit, Particular Group Teaching Procedure. Wittayacharn Vol.4, April 1996.
- [14] V. Panthane, Teaching and Learning Thai: Problem and Solution, Bangkok. 1999.

BIOGRAPHY



Chaiwat Waree was born in Nongchang, Thailand. He received the B.Ed. degree in Thai from the Srinakharinwirot University, TH, in 1999, the M.Ed. degree in Guidance and Counseling Psychology from the Srinakharinwirot University, TH, in 2002, and the D.Ed. degree in Curriculum and Instruction from the Burapha University, TH in 2010.

His research interests cover the Pedagogy and Psychology and Education Technology.

Dr. Chaiwat is a Lecturer at Faculty of Education, Suan Sunandha University and

External assessor for Office of National Education Standards and Quality Assessment, TH.