

การศึกษาประสิทธิภาพชุดฝึกอบรมบูรณาการพหุปัญญา ในการจัดการเรียนการสอนภาษาอังกฤษ

A STUDY OF THE EFFECTIVENESS OF THE TRAINING KIT ON AN INTEGRATION OF MULTIPLE INTELLIGENCES IN ENGLISH LANGUAGE CLASSROOMS

รัชนิย์ ศรีคุรุวาฬ¹, เฉลียวศรี พิบูลชล², สมรส วงษ์อ่อนโยน³
Rajini Srikuruwal¹, Chaleosri Pibulchol², Somson Wongyounoi³

¹สาขาวิชาภาษาอังกฤษในฐานะภาษาต่างประเทศ ภาควิชาภาษาตะวันตก คณะมนุษยศาสตร์ มหาวิทยาลัยศรีนครินทร์วิโรฒ
¹Teaching English as a Foreign Language Program, Department of Western Language, Faculty of Humanities,
Srinakharinwirot University.

²ภาควิชาภาษาตะวันตก คณะมนุษยศาสตร์ มหาวิทยาลัยศรีนครินทร์วิโรฒ
²Department of Western Language, Faculty of Humanities, Srinakharinwirot University.

³สำนักทดสอบทางการศึกษาและจิตวิทยา มหาวิทยาลัยศรีนครินทร์วิโรฒ
³Educational and Psychological Test Bureau, Srinakharinwirot University.

บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อศึกษาประสิทธิภาพของชุดฝึกอบรมในการพัฒนาความรู้และความเข้าใจเรื่องพหุปัญญา และในการเสริมสร้างสมรรถภาพการนำความรู้เรื่องพหุปัญญาไปประยุกต์ใช้ในการจัดการเรียนรู้กลุ่มตัวอย่างประกอบด้วยครูผู้สอนภาษาอังกฤษที่มีประสบการณ์การสอนภาษาอังกฤษในระดับชั้นต่างๆ จำนวน 12 ท่าน เครื่องมือที่ใช้ในการวิจัย ได้แก่ แผนการฝึกอบรมซึ่งแบ่งเป็นภาคทฤษฎี และภาคปฏิบัติ จำนวนเจ็ดแผน แบบทดสอบวัดความรู้และความเข้าใจเรื่องพหุปัญญาของครูผู้เข้ารับการอบรมก่อนและหลังการฝึกอบรม แบบประเมินแผนการสอน และแบบสังเกตการสอนใช้ประเมินความสามารถของครูผู้เข้ารับการอบรมในการนำความรู้เรื่องพหุปัญญาไปใช้ในการจัดการเรียนรู้

ผู้วิจัยใช้สถิติทดสอบของแมนวิทนีในการเปรียบเทียบคะแนนจากแบบทดสอบก่อนและหลังการฝึกอบรม จากผลการวิจัยพบว่า ความรู้และความเข้าใจเรื่องพหุปัญญาของครูผู้เข้ารับการอบรมก่อนและหลังการฝึกอบรมไม่แตกต่างกันอย่างมีนัยสำคัญ และพบว่าชุดฝึกอบรมสามารถเสริมสร้างและพัฒนาความสามารถในการนำความรู้เรื่องพหุปัญญาไปประยุกต์ใช้ในการสร้างแผนการเรียนรู้และการจัดการเรียนการสอนของครูผู้เข้ารับการอบรมในระดับปานกลาง

คำสำคัญ: พหุปัญญา, ชุดฝึกอบรม, การจัดการเรียนการสอนภาษาอังกฤษ

Abstract

This study aimed to measure how effectively the training kit enhanced the teacher trainees' knowledge of the concept of multiple intelligences (MI). It also aimed at measuring how effectively the kit could enable the teacher trainees to construct lesson plans integrated with the concept of MI and apply them in their teaching practice. The teacher trainees who participated in this study involved 12 experienced English language teachers who taught English as a foreign language to various grade level students under the basic education core curriculum of Thailand. The research instruments consisted of seven training plans, the test on the concept of multiple intelligences which was used as a pre-test and post-test to measure the development of the teacher trainees' knowledge and the observation tools which were employed to collect data on the teacher trainees' ability to construct and apply lesson plans integrated with the concept of MI.

Mann Whitney U-test statistic was employed to compare the results from the pre-test and post-test. The results revealed that the teacher trainees' knowledge of the concept of MI before the training was insignificantly different from their knowledge after the training. The training kit could moderately provide necessary skills for the teacher trainees to construct lesson plans integrated with the concept of MI and the teacher trainees could fairly apply lesson plans integrated with the concept of MI in their teaching practice.

Keywords: Multiple intelligences, Training kit, English language classroom

Introduction

Due to the importance of English language in global society, emphasis has been given to the teaching methodologies to promote students' English proficiency. In promoting the English proficiency of Thai students, educators have recognized the importance of moving away from traditional teacher-centered approach to learner-centered ones.

A learner-centered approach requires substantially more than merely asking students what they want to learn. Teachers must realize that each individual is unique.

Among many learner-centered approaches, multiple intelligences based (MIB)

instruction is one of the approaches that recognizes students' diverse capabilities. According to Whittaker as cited in Johnson [1], MIB instruction encourages children to draw well, sing aloud, have a good sense of self awareness, run quickly and have good social skills as well as being encouraged to collect bugs. MIB instruction stems from the theory of multiple intelligences proposed by Howard Gardner in 1983 in *Frames of Minds*. According to Gardner [2], each individual is unique and possesses at least eight intelligences. The eight intelligences are: mathematical/logical intelligence, verbal/linguistic intelligence, musical/rhythmic intelligence, visual/spatial

intelligence, bodily/kinesthetic intelligence, interpersonal intelligence, intrapersonal intelligence, naturalist intelligence.

MIB instruction helps teachers organize lessons that uniquely empower every child in the class. According to MI theory, success does not depend merely on mathematic and linguistic skills. Rather, focus should be on all of a child's intelligences.

In addition to attending to individual differences, MIB instruction helps stimulate higher order thinking and enables students to be involved in real life experiences. This notion coincides with Thailand's basic education core curriculum B.E. 2551 (Ministry of Education in Thailand, 2008) [3] which recognizes thinking capacity, problem solving ability and the capacity for applying life skills as desirable key competencies in addition to communication skills. According to Armstrong [4], MI theory presents a model that enables educators to move beyond heavily linguistic and lower order thinking activities into a broad range of complex cognitive tasks to prepare students for real life problems.

While higher order thinking is essential, MIB instruction also engages students in varieties of learning experiences that involve many senses [5]. The activities used in MIB instruction require students to practice skills in eight different areas. Therefore, the students are exposed to unforgettable learning experiences that connect with other subject areas.

Based on the diverse nature of MIB instruction, the approach helps English language

teachers by providing a framework within which teachers can use their creativity and imagination to design lessons that take into account individual differences and prepare students for real life experiences. It helps educator teach holistically by presenting content through various activities [1].

Based on the benefit of MIB instruction, there have been many studies done on the implementation of MIB instruction in foreign or second language classrooms which revealed favorable outcomes in terms of students' academic performance and their attitude towards foreign and second language classrooms. Among many of them are the studies by Haley, Christison and Conroy, Marchand, & Webster [6-8]. From these studies, the students' performances improved after receiving MIB instruction. They enjoyed the activities and expressed positive attitude towards their foreign language classrooms.

The benefits of MIB instruction on foreign or second language classroom has led the researcher to realize the need to inform as well as provide opportunity for English language teachers to integrate multiple intelligences in their English language lessons as highlighted by Christison [9] that it is important to provide new information and creative ideas to teachers in order to bring about challenges to the existing teacher education programs. According to Altan [10], competent teachers should be aware of individual differences and this awareness should be raised among teachers in teacher

education. For the purpose of raising English language teachers' awareness regarding individual differences, the researcher has found the interest in constructing a training kit and measuring its effectiveness in enhancing English language teachers' understanding of the concept of multiple intelligences as well as enabling them to apply it in their teaching.

The training kit was used to train the in-service English teachers and consisted of both theoretical and practicum sessions. The researcher arranged the training techniques and activities that did not rely heavily on lecturing but were based on the participative way of learning where the trainees participate in the activities and analyze the concept at the end.

Aims

This study aims to measure the effectiveness of the training kit in two important ways:

1) By enhancing teacher trainees' knowledge of the concept of multiple intelligences.

2) By enabling teacher trainees to construct lesson plans that integrate the concept of multiple intelligences in their English language lessons and apply them while teaching.

Research questions

1. Can the training kit enhance the teacher trainees' knowledge of the concept of multiple intelligences theory?

2. Can the training kit provide necessary

skills for the teacher trainees to construct lesson plans integrating the concept of multiple intelligences in English language lessons?

3. To what extent can the teacher trainees apply lesson plans integrated with the concept of multiple intelligences in their micro teaching?

Materials and Methods

Population and sample

The population in this study was in-service English language teachers who teach English as a foreign language (under the basic education core curriculum of Thailand) to primary and secondary levels students. Twelve in-service and experienced English language teachers were purposively selected from Satit Bangna School to represent the population of the study. The teachers in the sample group taught EFL to students of various grade levels.

The training was conducted in the evening between the end of August and the beginning of September, 2010. The days of the training were chosen according to the availability of the teacher trainees and the hours were collected until it completed 15 hours.

Research Instruments

The research instruments consisted of seven training plans, the test on the concept of MI theory and the observation tools which composed of lesson plan inventory and micro teaching observation tool.

The training plans focused on theoretical and practicum parts of MI implementation. The plans were revised by three experts

and pilot tested with a different group of EFL teachers. Appropriate adjustments were made to the plans.

The test on the concept of MI was used as a pre-test and post-test to evaluate the teacher trainees' knowledge of the concept of MI. It consisted of 26 multiple choice items. The test focused on three components, namely, introduction to MI theory, MI teaching strategies, and MI assessment. Three experts were consulted to confirm the content validity of the test items. The test items were tested with a pilot group of EFL teachers with varying levels of knowledge regarding MI in order to conduct item analysis and establish its reliability.

The observation tools consisted of the lesson plan inventory (LPI) and the micro teaching observation (MTO) tool which were used by two observers.

The lesson plan inventory was used to evaluate the teacher trainees' lesson plans integrated with the concept of MI prior to the micro teaching session. It consisted of two parts. Part A was in the form of a checklist which contained statements focusing on three areas: activities in the MI implementation stages, activities that encourage thinking skills, and activities in MI assessment. The statements were rated on a scale of 5 to 1 as follows: 5 indicates excellent, 4 indicates good, 3 indicates fair, 2 indicates a need for more effort, 1 indicates weak. The content validity and reliability of the LPI were established.

In order to support the quantitative data

from part A, part B was an open ended session where comments and suggestions by the observers were recorded.

The Micro Teaching Observation Tool was used to evaluate the teacher trainees' ability to apply their lesson plans in micro teaching. It consisted of two parts. Part A was in the form of a checklist which described desirable teaching behaviors. The statements were organized into three categories: teaching behaviors in the stages of MI implementation, behaviors in encouraging thinking skills and behaviors in assessing the learners. The statements were rated on the same scale as the lesson plan inventory. The content validity and reliability of MTO tool were established.

Part B was an open ended session.

Data Collection and Analysis

Using pre-test and post-test scores, the teacher trainees' knowledge of the concept of MI was tested on the pre-test prior to the training for comparison with post-test scores. The Mann Whitney U-test statistic was used to compare the teacher trainees' performances in the pre-test and post-test.

The LPI was used to evaluate lesson plans constructed by the teacher trainees. The teacher trainees worked in group. Each group produced one lesson plan. The lesson plans were evaluated by the two observers. After finding the correlation coefficients between the results obtained from the two observers, the results were randomly selected to be analyze according to the following criteria: a mean of 4.51-5.00 illustrates an excellent ability in

constructing a lesson plan integrating the concept of MI, a mean of 3.51–4.50 illustrates a good ability, a mean of 2.51–3.50 illustrates a fair ability, a mean of 1.51–2.50 illustrates a need of more effort and a mean of 1.00–1.50 illustrates a weak ability.

The MTO tool was used to observe the teaching practice of the teacher trainees. Each teacher was observed by the two observers. The results were randomly selected after calculating the correlation coefficients to be analyzed according to the following criteria: a mean of 4.51–5.00 indicates an excellent ability in applying the lesson plan integrated with the concept of MI in micro teaching, a mean of 3.51–4.50 indicates a good ability, a mean of 2.51–3.50 indicates a fair ability, a mean of 1.51–2.50 indicates a need of more effort and a mean of 1.00–1.50 indicates a weak ability.

Comments and suggestions in part B from LPI and MTO tool were summarized and reported.

Results

Due to the insignificant difference between the pre-test and post-test, it was not confirmed that the training kit could enhance the teacher trainees' knowledge of the concept of multiple intelligences.

The training kit could moderately provide necessary skills for the teacher trainees to construct lesson plans integrating the concept of multiple intelligences.

The teacher trainees showed a fair

ability in applying the lesson plans integrated with the concept of multiple intelligences in their micro teaching.

Conclusions and Discussion

Due to the insignificant difference between the pre-test and post-test, the average differences were calculated for each component in the test. It was found that there were slight gains in all the three components and they were proportional to the teacher trainees' performance in the pre-test. This improvement may be because MI encompasses raising awareness of what teachers do in class. Implementation of MI does not require any revolutionary effort in transforming a normal classroom into a new world. According to Armstrong [4], there are no definite rules for the application of MI. The theory of MI involves what good teachers always do in their teaching. Regardless of the teacher trainees' minor improvements in the knowledge of the concept of MI theory, they are now more aware of different intelligences and have learnt more about the implementation of MI. As commented by many teacher trainees that they have learnt about the different intelligences that operate among learners and also how to organize their lessons in more interesting ways.

Other reasons for the insignificant difference between the pre-test and post-test may include the fact that the multiple choice items in evaluation were based on situations that require thorough understanding of the concept of MI. Therefore, the teacher trainees

needed more time and effort to understand the concept of MI in order to show more improvement. According to Malderez and Bodóczy [11], to acquire any skill, the most important factor is time. A few teacher trainees commented that they would like to have more time to learn more about the theory and its implementation.

This training was conducted as part of the personnel development program at Satit Bangna School. Participants expressed varying degree of interest in the theory of MI. This may be because MI is not widespread and some teachers might not have realized the importance of integrating it in their classrooms. Training is successful if participants are motivated to learn and realize the need to learn. According to Malderez and Bodóczy [11], it is crucial for any short courses to emphasize the need to know more. Learning takes place effectively when learners feel the need to learn in order to improve performance [12]. Among many extrinsic factors that can block learner' motivation is when trainees are made to attend the courses which may lead to negative feelings [13]. Having initial desire to learn is a crucial factor in motivating learners. It would have been beneficial for this training to ensure that all the learners were fully motivated.

Another important point that affected the teacher trainees' motivation was the timing of the course. This training was conducted between the end of August and the beginning of September during normal school days when the teachers still had to conduct their daily

teaching. The days of the training were chosen according to the availability of the teachers and it was conducted during evenings after school. The hours of the training were collected until it completed fifteen hours. This resulted in weak continuity of the training session. The teacher trainees reported being tired from their daily teaching work. Therefore, it would have been better for this training to take place during school holidays when teachers would not be distracted by their daily teaching load.

The teacher trainees' fair ability to construct as well as apply MI lesson plans is considered satisfactory, although not in the 'good' or 'excellent' categories. These satisfactory abilities were supported by the varied training techniques and activities used in the training. The teacher trainees reported that they enjoyed the activities in the training and did not feel bored. This shows that they felt effectively involved. Woodward [14] explains that experiential learning helps reduce the gap between theory and practice. The techniques used in this training consisted of demonstration, brainstorming, group discussion, pair work and reflection. All of these empowered the trainees to learn from experience and link theory to practice.

Another factor contributing to the fair ability of the teacher trainees was the supportive relationship between the trainer and trainees. In order to create good rapport with the trainees, the trainer approached the teacher trainees prior to the training to share their beliefs, background knowledge, interests and

teaching experience.

Although the training techniques and activities used in this training focused on experiential learning and did not rely on lectures, some participants would have preferred lectures; they would love to be told at certain times. Indeed, all people have different learning styles. Therefore, appropriate number of lectures could support different learning styles and ensure an optimum learning experience.

From another angle of the teacher trainees' fair ability, more time was needed by the teacher trainees to put the theory they learnt into practice. The teacher trainees involved in this study had some prior teaching experience and the focus of this training was to guide them to construct their own understanding of the application of MI by integrating it into their existing teaching experience. According to Murdugh [15], teachers with some teaching experience have established patterns of behaviors in the classroom and these may cause resistance when they receive fresh input during training. Baldwin & William [13] adds that time is required for reflection, self-appraisal and opportunities to explore other possibilities. In this training, the teacher trainees had only a single chance to construct MI lesson plan and perform teaching practice. Thus, they needed time to reflect on their teaching behaviors from time to time to develop optimum teaching behaviors.

Implication of the Study

The training kit from this study can be used to train other groups of English language

teachers so that they can plan their English lessons in a way that takes individual differences into considerations and widen the opportunities for their students to practice life skills and thinking skills.

This study also serves as a guideline for the development of other learner-centered training programs.

Limitation of the Study

1. The training was conducted after school hours which affected the trainees' level of motivation.

2. It was difficult to observe the trainees' regular classes prior to the training course. This also made it impossible to arrange for authentic classroom situations for the practicum session of the training.

Suggestions for Further Studies

Recommendations for further studies are presented as follows:

1. It is recommended for further studies to measure the affective sides of the training where the trainees express their attitudes toward the application of MI.

2. In order to be more specific regarding the integration of MI, a training kit should be constructed for use at specific levels of education.

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