The Organization of Thai Language Learning Tonal Inflection with Finger

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ABSTRACT

This was a study on the implementation of finger-counting technique with Brain-Based Learning model (BBL) to:1) improve tonal inflection skill for the students at Prathomsuksa 1 level to meet 70% of the standard criteria; 2) enhance the student's analytical thinking skill to meet 70% of the standard criteria; 3) to examine the student's self-confidence. The sample group was 12 Prathomsuksa 1 students who were currently studying in semester 2 of an academic year of 2014 at Baan Hua Dong Primary School, Tambon Hua Dong, Amphoe Na Doon, Maha Sarakham. Four types of research instrument were used in this study including of four plans of highly quality learning management, learning achievement test with 20 3-choice question items and reliability score of 0.80, analytical thinking test with 20 3-choice question items and reliability score of 0.89, and self-confidence assessment form (rating scale) with 10 question items and reliability score of 0.63. The data was statistically analyzed to find percentage, mean, and standard deviation.

The finding was resulted that the student's learning achievement in tonal inflection skill was 80.83% increased; meanwhile, their analytical thinking skill was 79.16% increased. Significantly, these scores were higher than that of the standard criteria and the students highly developed their self-confidence.

Keywords : learning management of finger-count with brain-based cooperative learning model, learning achievement, analytical thinking, self-
-confidence

Introduction

Thai language module as stated in the basic educational curriculum B.E.2551 should promote the knowledge body that consists of Module 1: Reading Skill, Module 2: Writing Skill, Module 3: Speaking, Listening, and Watching, Module 4: Language Use, Module 5: Literature and Literary Work (Department of Academic Affairs, 2002: p.6. Specifically, reading and writing skills are the necessary tools for an individual to gain knowledge and look for recreation, as well as to construct a knowledge body and experience. Accordingly, a person

who is able to read and write takes more benefits over the others to gain knowledge and get smarter. In addition, Thai language learning should encourage a person to improve himself, to learn with happiness, and to seek for knowledge. A person should be able to take note and systematically categorize the newly gained knowledge and information. In this regard, student-centered learning management should be provided through different instructional media. Indeed, reading and writing mutually support one another. That is, a person who can write well will be a good reader. Besides, these skills are directly linked with Thai language learning achievement. Unfortunately, it has not been a success today. The student's learning achievement is currently low and they normally get low score for reading and writing the word with tone mark. At this point, finger-count tonal inflection is to guide the students to begin with medium-tone conso-nants without final consonants. The students spread their right-hand fingers and thumb is marked as "middle tone", pointing finger as "low tone", middle finger as "falling tone", ring finger as "high tone", and pinky finger as "rising tone". These five tones should be inflected respectively. To do so, it could simply begin with a medium-tone consonant added with a long vowel. Then, an inflection could be practiced by pointing left-hand fingers on those of the right hand starting orderly from low tone, falling tone, high tone, and rising tone. With this approach, most of students could not inflect the tones so they became

demotivated. They also are easily confused since Thai language contains 44 consonants with different sounds and can be categorized into 3 groups including high-tone consonants, medium-tone consonants, and low-tone consonants. These consonants can be mixed to form words with different pronunciation which seems difficult for some students to do. From the problem previously discussed, a helpful approach to promote the student's learning is Brain-Based Learning model (BBL) which provides a variety of teaching techniques that excites the learner to concentrate more on their learning. Specifically, the learners are motivated to activate all parts of their body to interact with one another as well as their emotional and physical exercise and relaxation. Likewise, the instructional method purposively aims to challenge the learners to develop their skill based on their background knowledge. Some essential content will be inserted during a period of teaching so that the learners acquire it unconsciously in the learning environment where they can learn with fun and joy. This approach will definitely activate all function inside the learner's brain. Meanwhile, teachers heed to know different choices of instructional techniques that suit different levels of learner's back ground knowledge and be more considerate to their personal characters (Bureau of Academic Affairs and Academic Standard, 2010: p.21).

Before conducting this study, the resear-cher explored the problem of Phrathomsuksa 1 students with low learning achievement at Baan Hua Dong Primary School in Amphoe Na

Doo, under Office of Maha Sarakham Basic Educational Service Area 2 and found that they could neither read nor write. The students were unable to think analytically and too unconfident to write any paper works. At their level, these students should be able to write and know sufficient vocabulary. In addition, they have to know tone marks which are an important element that defines the meaning of words. In practical, tonal infection seems difficult for Prathomsuksa 1 students and most of them were not familiar with this skill so they could not understand an inflection of the tone marks. Thus, to enhance the student's learning achievement and their learning skill, teachers should provide a variety of activity to motivate them to learn and acquire knowledge by themselves. The activity should vary based on the student's different background knowledge (Baan Hua Dong Primary School Academic Affairs, 2013: p.3)

As a consequence, the researcher purposively conducted this study to affirm the implementation of finger-count approach with BBL model to enhance the student's learning achievement in tonal infection skill, analytical thinking, and self-confidence. Related documents and research papers were explored, analyzed, and discussed to seek a useful guideline for teachers or the responsible person to manage the effective learning process for Thai language subject.

Objectives

1. To improve tonal inflection skill for the students at Prathomsuksa 1 level to meet 70% of the standard criteria.

2. To enhance the student's analytical thinking skill to meet 70% of the standard criteria.

3. To examine the student's self-confidence.

Scope of the Study

1. Population and sample group were as follows.

1.1 Population was the students at Prathomsuksa 1 level at Baan Hua Dong Primary School in a network of 14 schools in Amphoe Na Doon, under Office of Maha Sarakham Basic Educational Service Area 2. Namely, 85 students with similar level of skill were selected from classes from 4 different schools.

1.2 Sample group consisted of 12 students at Prathomsuksa 1 level currently studying in semester 2 of an academic year of 2014 at Baan Hua Dong Primary School, Aphoe Na Doon, under Office of Maha Sarakham Basic Educational Service Area

2. The participants were purposively sampled.

Research Instruments

1. Four plans of finger-count tonal inflection with BBL model.

2. Learning achievement test with 20 3-choice question items.

3. Analytical thinking test with 20 3-choice question items.

4. Self-confidence assessment form (5-rating scale) with 10 question items.

Data Collection

The research collected and analyzed the data through the following steps.

1) At the beginning, 4 plans of finger-count tonal inflection with BBL model were implemented consecutively to manage the classroom. The student's in-class score, from the behavior observation form and quizzes, was recorded during the time that each plan was being conducted orderly.

2) The students were post-tested by completing the finger-count tonal inflection learning achievement test, analytical thinking test, and self-confidence assessment form. The scores were checked and recorded.

3) At the final stage, the data from the student's score was statistically analyzed to answer the research objectives

Data Analysis

In term of data analysis, the researcher followed the steps below.

1. An analysis on the student's tonal inflection skill after learning through finger-count tonal inflection with BBL model indicated the mean score of 80.83 which was higher than 70% of the standard criteria. That is, all 12 students passed the test and their scores were discussed in Table 1.

Table 1 : Score of Student's Tonal Inflection Skill

No.	Score (80 pts.)	Percentage	No.	Score (80 pts.)	Percentage
1	61	76.25	7	71	88.75
2	64	80.00	8	70	87.50
3	57	71.25	9	61	76.25
4	71	88.75	10	71	88.75
5	69	87.14	11	57	71.25
6	70	87.50	12	69	87.14
Total				766	80.83

2. An analysis on the student's analytical thinking skill suggested that their mean score was 79.16 higher than the standard criteria. Then, all 12 students passed the test with the scores discussed in Table 2.

Table 2 : Score of Student's Analytical Thinking Skill

| No. | Interpretation | | | Score | Percentage |
	Significance (7 pts.)	Correlation (7 pts.)	Principle (6 pts.)	(20 pts.)	of Score
1	5	6	6	17	85.00
2	5	6	5	16	80.00
3	6	6	5	17	85.00
4	6	5	6	17	85.00
5	4	6	6	16	80.00
6	6	5	5	16	80.00
7	6	6	6	18	90.00
8	6	7	5	17	85.00
9	5	6	5	16	80.00
10	5	6	4	15	75.00
11	5	5	5	15	75.00
12	6	5	5	17	85.00
Total	68	67	55	190	79.16

3. An analysis on the student's self-confidence through finger-count tonal inflection with BBL model suggested that their overall confidence was high (X = 3.54) as discussed in Table 3.

Table 3 : Mean, Standard Deviation, and Levels of Self-Confidence of Students after Learning through Finger-Count Tonal Inflection with BBL Model

Topic of Evaluation		S.D	Level of Inquiry Learning Skill
Leadership	3.83	0.75	High
Self-Confidence	3.75	0.72	High
Self-Adjustment	3.92	0.79	High
Mean	3.54	0.63	High

Conclusion

1. After implementing finger-count with BBL model, the students gained a mean score of 80.83 for their tonal infection skill which was higher than 70% of the standard criteria. Namely, all 12 students passed the test.

2. The students gained a mean score of 79.16 for their analytical thinking skill which was higher than the standard criteria, and all 12 students passed the test.

3. The student's confidence was increased for in their tonal infection skill, in which it was rated with a high score.

Discussion

The finding was discussed as follows.

1. After the implementation of finger--count approach with BBL model, the student's tonal inflection skill was 80.83% increased. Specifically, this learning management was systematically planed in which the researcher had designed after previously studying on the curriculum, teacher's guide, related documents and research papers. This model had been firstly proposed to the advisor before it was evaluated and verified by the experts so it was an effective approach that encouraged the students to improve their tonal inflection skill with higher than the standard criteria. It was also an outcome from BBL model that mainly focused on the students and encouraged them to participate in different activities, so they had a chance to practice and study to develop a knowledge body or a project. The students could improve their skill and learn by activating the brain to review and repeat the activities so they could construct their systematic and permanent learning process (Wimonrat Soonthornrojana, 2011; pp. 72-74). To support the claim, a study by Samran Chanprakon (2011, pp. 82-166) affirmed that finger-count tonal inflection with STAD model was an effective learning activity to develop the Prathomsuksa 1 student's Thai language learning skill with effectiveness index of 91.09/88.33 higher than a 80/80 standard criteria. In particular, the student's mean score was 91.09 including in-class activities, behavioral observation by teacher, tests, and individual quizzes during the time that each of 12 learning plans was being implemented. Meanwhile, they learning achievement was 88.33% increased ensuring that the learning management plan was well-designed and met a 80/80 standard criteria. Similarly, Nutrawan Boontawee (2010: pp. 65-196) implemented and confirmed that finger-count tonal inflection activity and skill tests were effective to improve Prathomsuksa 1 student's Thai tonal inflection skill with effectiveness index of 88.51/81.53 as their mean score, including in--class activities, inquiry learning skill, tonal inflection test, and quizzes, was 88.51. Significantly, the student's learning achievement score was 81.53% developed indicating that the learning management plan and skill test definitely met a 80/80 standard effectiveness index; meanwhile they gained a higher post--test score with a statistical significance of .05 as defined in the research hypothesis. This finding was similar to Karuna Meewan (2011 : pp.79-158) who previously studied on the

implementation of BBL model and confirmed that it was an effective model to promote Prathomsuksa 2 student's reading and writing skills with effectiveness index of 86.01/83.50 higher than the standard criteria; meanwhile, the effectiveness index of the reading and writing skill development plan was 0.7843 which meant that the student's post-test score was 78.43% increased with a statistical significance of .05. In the same vein, Em-orn Kaewpet (2010: pp.67-168) examined the effect of Thai language learning activity on Prathom-suksa 3 student's proficient reading skill using BBL model and found that the effectiveness index of Thai language module learning plan on reading and word spelling with final consonants was 0.8147 affirming that the student's post-test score was 81.47% increased and their reading skill became more proficient. This finding could be supported with a study by Bilal Duman (2010 : pp. 2077-2103) on "the Effects of Brain-Based Learning on the Academic Achievement of Students with Different Learning Styles" suggesting that BBL model was more effective to enhance the student's achievement than did the traditional approach. Likewise, Ahmed (2000: 3032-B) previously developed the phonemic and orthographic spelling patterns to assess the basic spelling knowledge of 390 children from grade 2 – 5 in the United State of America and found that the children at four levels in two independent sample groups demonstrated the same learning behavior and spelling practice; meanwhile, a statistical significance was found between Grade 2 and Grade 4, Grade 2 and Grade 5,

Grade 3 and Grade 4, and Grade 3 and Grade 5. After all, the children at different grades used different practical skills to learn the orthographic spelling pattern alone and the phonemic spelling pattern plus the orthographic spelling pattern. From those three spelling patterns, the most difficult part was the orthographic words since there were changes in both morpheme and phoneme. Thus, the students at four levels mad an error while spelling.

2. The student's analytical thinking skill was developed for 79.16% affirming that the researcher's finger-count tonal inflection with BBL model was an effective learning approach with higher score than 70% of the standard criteria and well answered the objectives of the study. Indeed, with this model, the students had a chance to think analytically on some details so they could develop their learning process for the advanced analytical thinking. This finding was ensured with a study by Orathai Thongcharat (2012: pp.70-112) that compared Thai language use and analytical thinking in Prathomsuksa 2 students who learnt through Cartoon with STAD cooperative learning model and those who learnt with Cartoon with CIRC cooperative learning model. She finally found that the students from both groups had no difference in their analytical thinking skill.

In this regard, Laddawan Saikwa (2013 : pp.53-75) supported that mind mapping with spelling ball distribution was an effective learning plan to enhance Prathomsuksa 1 student's learning achievement in reading,

writing, and analytical thinking skills with effectiveness index of 80.59/80.20. In particularly, the student's analytical thinking skill was developed after implementing the learning plan. In the same vein, finger-count tonal inflection with BBL model effectively enhanced the student's analytical thinking skill so they gained better understanding toward the lessons. They also were able to analyze and summarize the main ideas as well as utilizing the newly gained knowledge in an advance level.

3. After learning with finger-count tonal inflection with BBL model, the students demonstrate their self-confidence at high level since the researcher provided the lessons orderly from the easiest to the most difficult in which the student could gradually learn in a certain progress. The students worked as team and planed for group presentation. With teamwork, the students with better skill could support the members with lower ability to achieve the same goal. Although the members had different levels of personal skill, they practically participated in learning and share the success of their group. More importantly, each member acknowledged his learning achievement and gained more confidence to progress. As a result, finger-count tonal inflection with BBL model was an effective approach to strengthen the student's relationship while they were having fun by practicing their tonal inflection skill. It was a good technique for students to obtain an experience in language learning. This finding could be supported by Wimonrat Soonthornrojana (2011: p.17) who

suggested that learning with BBL model is a learning activity that purposively constructs the cooperative learning environment for learners to learn as small focused groups. The learners have to support one another. That is, the smarter students should help their classmates with poor ability. A member is not only responsible for his personal learning process, but also cares for the others members. The group success will be share amongst all members. This is similar to the outcome from Gable's study (Luan Saiyot and Ankana Saiyot, 2000: p.317; citing Gable, 1986: p.147) stating that an instrument on the affective domain should have the reliability score of .70. Likewise, Luan Saiyot and Ankana Saiyot (2000 : p.317) suggested .75 of reliability score. For these reasons, the life skill assessment form designed by the researcher was reliable. Some topics might have lower than .75 of reliability score due to a fewer number of question items.

Suggestions

1. General suggestions

1.1. Before implementing finger-count tonal inflection with BBL model in classroom, teachers should clearly understand the whole procedure in order to conduct the activity with in the most effective way.

1.2. Teachers should conduct the classroom that motivates the students to activate their initiative and creative thoughts.

1.3. Teachers should give a clear explanation of the learning model and get familiar with all students to gain trust from them in return.

1.4. During a period of practice, teachers should demonstrate each activity repeatedly and motivate all students to join the activity so they can get more confidence to show off.

1.5. After each activity, teacher should immediately inform the student's score so they will acknowledge their personal progress as well as reinforcing them to show more eagerness in doing the activities.

1.6. In every period of activity, teacher should closely observe the class to guide the students and after finishing each learning plan, they should be assigned to present their complete work so that they could know the mistake and correct it.

2. Suggestion for Further Study

2.1 Further study should be conducted on tonal inflection skill, analytical thinking skill, and self-confidence for other modules. There also should be a further study to seek more useful learning models to help the students with poor tonal inflection skill to develop their learning achievement in tonal inflection, analytical thinking, and self-confidence at higher level than mentioned in this study.

2.2 Enhancement of the learner's tonal inflection skill, analytical thinking skill, and self-confidence using BBL model should be tried on other issues.

2.3 Learning management to promote tonal reflection skill, analytical thinking skill, and self-confidence with BBL model should be discussed on other variables such as attitude, critical thinking, learning retention, self-esteem, emotional quotient, etc.

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