Enhancing English Reading Comprehension Ability by Using Active Learning[*]

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Abstract

The objectives of the study were to 1) compare the reading comprehension ability of the students between before and after using active learning; and 2) examine the undergraduate students' satisfaction towardstheactive learning. The sample was 59 undergraduate students which were selected purposively. Instruments were active learning management plans (ALMP), a reading comprehension test, and a satisfaction questionnaire. The data was analyzed by percentages, mean, standard deviation, and t-test.

The results revealed as follows:

1. The reading ability scores after using active learning werehigher with a statistically significant difference at the level of 0.05.

2. The students werevery satisfied with the active learning ($\overline{x}$ = 4.26, S.D. = 0.18). The most satisfying aspect was 'benefits of learning' ($\overline{x}$ = 4.43, S.D. = 0.27) and the second and third were 'activities ($\overline{x}$ = 4.21, S.D. = 0.30) and 'learning atmosphere' ($\overline{x}$ = 4.12, S.D. = 0.41) respectively.

Keywords: Reading Comprehension Ability; Active Learning; Reading English

1. Introduction

Active learning is a learning management strategy which corresponds with building 21st century skills for students' success as the strategy creates meaningful learning and reflects what students have learned. The activities are created in various and creative situations. The teachers shift

their role from a leader to be a facilitator so that motivate the students to participate in the lessons. (Prince, 2004, pp. 233-231; Prontadavit, 2016). Apart from elevating proficiency, active learning gains students' efforts to achieve soft skills interpersonal skills such as communication, leadership, decision making, conflict resolution, and group processing (Johnson & Johnson, 2005, pp. 285-358).

According to national and international English proficiency tests, the scores of many Thai students were lower than the expectation (Office of the Educational Council, 2015). Most EFL learners were unsuccessful with reading comprehension (Afflerbach, Pearson, & Paris, 2008, pp. 364-373). This conformed with the studies of Narkprom, Poosiripinyo & Saito (2016, pp. 176-185) and Phonhan (2017, pp.1-12) which investigated Thai students' reading problems and found that their reading proficiency was low in understanding structures, vocabulary, and content. Most of them (over 70%) could not correctly answer questions in their reading. When English learning activities in English class could not stimulate the students to be active, the student's language ability has not been fully developed.

Therefore, their proficiency did not meet learning outcome expectations. They also lack English communicative skills, a positive attitude in learning as well as other skills such as creative and critical thinking skills (Pawachot, 2020, pp. 53-65).

English for Communication 2 is a compulsory course for students at Rajamangala University of Technology Thanyaburi. According to previous learning outcomes, their reading scores were rather low (only 40%). So, an effective learning approach was needed to be implemented for developing their reading comprehension ability. Many studies showed that having students engage in active learning results in higher achievement and more positive feelings, for example, Demirci (2017, pp. 129-144) claimed that activelearning could increase students' positive attitude towards English which, in turn, enhances their academic achievement. Pawachot (2020, pp. 53-65) found that developed active learning activities increased learning achievement and creative thinking skills of the grade five students. These aligned with studies of Thatdee (2018) which revealed that active learning could increase critical reading skills.

As aforementioned, active learning could generate systematic thinking, practicing, analyzing, synthesizing, and evaluating. Students need to search for information, share opinions, cooperate, analyze and reflect. These made them better at solving problems and having a better attitude towards English. So, an active learning approach was introduced in this study to develop the reading ability of students at Rajamangala University of Technology Thanyaburi. There were several approaches of active learning as follows: 1) Cooperative Learning, 2) Problem-based Learning, 3) Discussion, 4) Brainstorming, 5) Think-Pair-Share, and 6) Student-led review sessions.

2. Objectives

1. To compare the English reading comprehension ability of the undergraduate students before and after using active learning.

2. To examine the students' satisfaction towards active learning lessons.

3. Methodology

The study was a quasi-experimental design with a single group pretest-posttest design. First, the students took the pretest, and then eight active learning management plans were introduced. After that, the post-test was conducted.

1. Population and sample

The population in this study was undergraduate students of Rajamangala University of Technology Thanyaburi who enrolled in English for Communication 2. The sample was 59 students which were purposively selected.

2. Research instruments

All instruments in this study were evaluated for content validity by three experts. Any comments and suggestions were adopted to revise the instruments, and they were validated by the experts againbefore applying. The instruments are as follows:

2.1 The eight active learning management plans (ALMPs) were used within 8 weeks (a session per week). A reading session lasted for 90 minutes. The IOC of the plans was 1.00 by three experts. Researchers studied and analyzed theory and principles on active learning management (Meyer & Jones, 1993), curriculum, course description of English for Communication 2, and the textbook to set the range of contents and activities included in the ALMPs.

Each plan contained five steps of the active learning management process which were applied from the Ministry of

Education (2019) and Johnson, Johnson, & Smith, (1991). The steps are as follows: 1) Experience Activation: this step stimulates students' motivation and background knowledge and introduces learning objectives; 2) Situation Introduction: teacher introduces challenging situation to students and tries to connect their background knowledge; 3) Brainstorming and Activities: students do brainstorming. They think, analyze, synthesize, evaluate and solve the problems together and discuss; 4) Knowledge Creation: students present and sharing their ideas; and 5) Summarizing and Applying: students summarize and reflect the knowledge.

2.2 The reading comprehension test contained 30 questions in multiple-choice items. The IOC of the test was 0.98 by 3 experts. The difficulty index (p) was between 0.20-0.73. The discrimination level (r) was between 0.20-0.55. The reliability of pretest and posttest 0.82.

2.3 The students' satisfaction questionnaire was a five-level Likert Rating Scale which comprised of three parts as 1) activities, 2) learning atmosphere, and 3) benefits of learning. The IOC of the questionnaire was 1.00.

3. Data collection

There were two main steps of data collection as follows:

3.1 Preparation: learning objectives, the steps of the learning process, the activities, and the evaluation were introduced to the samples. The pre-and post-tests were used as a summative assessment that evaluated their reading ability before and after using active learning.

3.2 Implementation: There were three steps as follows: 1) The sample was given 60 minutes to do the pretest to evaluate their reading comprehension ability before receiving the treatment. 2) The 8 ALMPs were implemented in eight weeks intervals. 3) After finishing all eight lessons, the sample was given 60 minutes to take the posttest which was the same questions as the pretest and also took the satisfaction questionnaire.

4. Data analysis

4.1 Reading comprehension scores derived from pre-and post-tests were analyzed via t-test.

4.2 The data from the questionnaire were analyzed by percentage, mean and standard deviation. The satisfaction was divided into five levels from 5 (most satisfied) to 1 (least satisfied). The scores could be interpreted as following

criteria: 4.50-5.00 = most satisfied, 3.50-4.49 = very satisfied, 2.50-3.49 = moderated satisfied, 1.50-2.49 = less satisfied, 1.00-1.49 = least satisfied.

4. Conclusions

According to data analysis, conclusions were presented as follows:

1. When compared reading comprehension scores before and after using active learning, the average post-test score was higher ($\bar{x}$ = 22.56) than the average pre-test score ($\bar{x}$ = 15.64). The reading comprehension ability was higher after using active learning. The t-test score was 49.58 at $p < .05$. The results were presented in the table.

Table 1 Comparison between pre-test and post-test reading comprehension scores

test	N	full score	$\bar{x}$	S.D.	t	df	Sig (2- tailed)
pretest	59	30	15.64	1.72	49.58[*]	58	0.0000
posttest	59	30	22.56	1.48			

[*]$P < 0.05$

2. The overall satisfaction of the students towards the active learning management was ranked as a high level ($\bar{x}$ = 4.26, S.D. = 0.18). For each aspect, the most satisfying aspect was 'benefits of learning' ($\bar{x}$ = 4.43, S.D. = 0.27). The second most was 'activities' ($\bar{x}$ = 4.21, S.D. = 0.30) and the third was 'learning atmosphere' ($\bar{x}$ = 4.12, S.D. = 0.41). The details are presented in the following sections:

2.1 In the aspect of the benefits of learning, the satisfaction level was high. The students were satisfied with the item 'The active learning management helped students to develop reading ability.' most and the second-highest score was 'The students could apply knowledge from the lessons to their daily lives.'

2.2 In the aspect of the activities, the satisfaction level was high. They were satisfied with the item 'Warm-up activities were interesting and provoking the students' attentions.' most. The second ranking was 'The activities encouraged cooperative learning.', and 'The activities encouraged students to think, to analyze and to share their ideas.'

2.3 In the aspect of the learning atmosphere, the satisfaction level was ranked high. The highest score item was 'Students enjoyed with the reading activities.' and the second highest one was 'The

activities encouraged good relationships between students and students, students and teachers'.

5. Discussions

Important issues from the study were discussed as follows:

1. After introducing the active learning management plans, the students' reading ability scores increased significantly. This might be because the lesson plans were clearly and systematically presented via the five steps which applied from Johnson, Johnson, & Smith, (1991); Meyer & Jones (1993); Ministry of Education (2019). In addition, the active learning activities emphasized on the students' engagement. They got to collaborate with their classmates to do pair and group works which gained their more positive attitude via researching, questioning, answering, sharing ideas, analyzing, and evaluating. The teacher created meaningful situations that learners can share their ideas with the teacher and their peers until led to crystalized knowledge. Moreover, the active activities encouraged students to do more practice; thus, they much more participated in the lessons than conveyed by the traditional approach (Demirci, 2017, pp. 129-144; Thatdee, 2018;

Surakarn et al., 2020, pp. 34-51). Doing the activities with their peers made them more relaxed than in the traditional approach. It could develop their attitudes towards learning and increase their proficiency. These were consistent with studies (Henard & Roseveare, 2012; Ketpichainarong & Sriwattanarothai, 2014) which indicated that active learning positively affected attitude and academic achievement.

2. The students were highly satisfied with the active learning management. This may be because the students realized that their reading ability was developed via the active learning activities and they could apply the knowledge and skills to their real lives. They could fully show their potential in group working and also improve interpersonal skills which were an important skill for 21st century during studying. With meaningful lessons designed by the teacher, the various activities related to the students' needs created more dynamic learning management. These results aligned with studies of Moradi, Faghiharam & Ghasempour (2018); Thatdee (2018); Surakarn et al., (2020, pp. 34-51). Moreover, when the students participated in deciding on task achievement, they were more satisfied with the learning and put more effort into it

(Gimsoongneun, 2014, pp. 78-89).

The results corresponded with Niyom (2007) who explained that active activities stimulated thinking skills. It was fun and challenging which encouraged the students to be creative and work systematically. The students learned and absorbed techniques to apply to their lives. They were more fulfilled when they better understood the reading texts because the active activities helped them link their background knowledge to the lessons. They could analyze and synthesis the previous and new knowledge and then they would scaffold it to make understanding what they were reading. Therefore, they became learners who know how to learn. It differed from surface learning which focused on receiving information and creating short-term memory. When the students were enthusiastic and possessed the ability to select information, the teaching and learning could be effectively successful (Kreusang, 2013).

The students were satisfied with the learning atmosphere which was similar to the findings of studies of Wanner (2015, pp. 154-163) and Tubarsa (2019). These studies showed that active learning could trigger students' interest and positive attitudes towards English learning. The activities encouraged collaboration and problem-solving. It was both relaxed and challenging with reading tasks appropriate to their English levels. The teacher stimulated their thinking with questions, so they learned with fun and creativity which conformed with Clair & Haynes (1994) and Pawachot (2020, pp. 53-65). They found that teaching and learning management in EFL should not make the student stressed, scared, or anxious because these feelings could reduce their motivation in learning. It can be said that they can learn best in relaxed situations with suitable challenges and good rapport.

6. Recommendations

1. Recommendations for active learning implication

1.1 Teachers should design learning management plans which arouse the students' thinking and interests.

1.2 Teaching materials should be various and creative for connecting the students' experiences and challenging their thinking.

1.3 Teachers should pay attention to select activities matching with taught contents because active learning has a variety of activities. For instance,

role-play, could be more suitable for speaking, and vocabulary recognition than reading.

    2.   Recommendations for further studies

    2.1 Active learning should be conducted to develop other kinds of reading abilities such as critical reading, analytical and inferential skills.

    2.2 These may lead to new findings which can develop reading activities to solve students' reading problemsand increase the students' reading levels.

7. Body of Knowledge from the Research

    Active learning, which is a student-centered approach, can increase the reading comprehension ability of undergraduate students. A teacher becomes a facilitator. During the reading activities, the students structure in cooperative learning, figure out the answers, exchange the ideas and present them to the class while the teacher monitors and helps the students when they need. Therefore, using active learning in the reading class can build good relationships between students and students, students and teachers as well. They are happy and fun with reading activities among relaxed and supportive learning atmosphere which affects the students' success in studying and have a more positive attitude towards English reading. Furthermore, soft skills which are needed as 21st century skills, such as problem-solving or working in a team, are developed through using active learning. According to this study, other teachers can use it as a guideline for setting teaching and learning goals as well as objectives, designing learning management plans, and implementing them for their contexts.
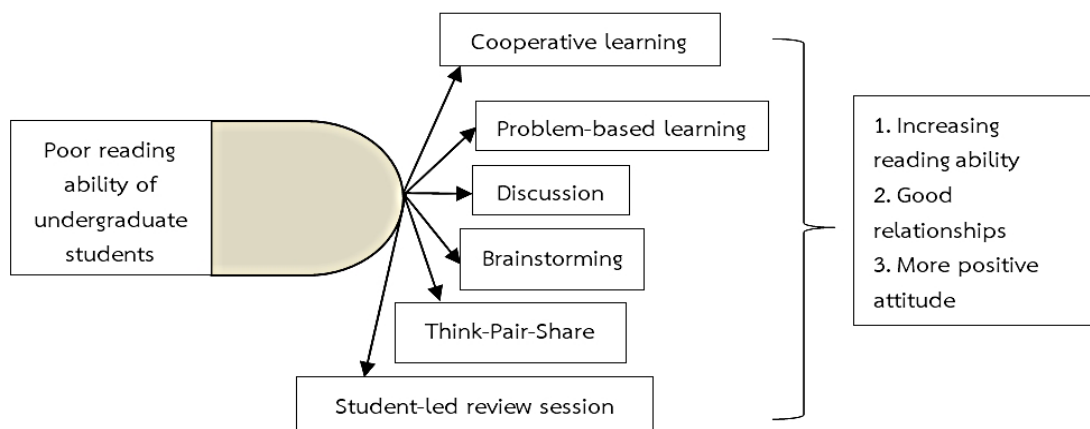

Figure 1: Body of knowledge from the research

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