

An Implementation of Active Learning in Thai University Students' English Language Classroom

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Abstract

This present study attempted to investigate the effects of the implementation of active learning in Thai university students' English language classroom on 2 aspects which are 1) the achievement, and 2) the motivation. The participants were 45 students studying in the English for Communication class from various faculties at Nakhon Pathom Rajabhat University. Pre and post-tests, a delayed post-test, pre and post questionnaires and semi-structured interview were conducted to the participants. The data obtained through the pre and post-tests, a delayed post-test, pre and post questionnaires were computed and quantitatively analyzed. Moreover, the elicited data of the open-ended questions from questionnaires and the semi-structured interview questions were then summed up and interpreted using a grouping technique. Overall, the results revealed the positive effects of active learning in enhancing students' achievement and motivation. The findings also unveiled both positive and negative effects of the implementation of active learning in the classrooms. The study potentially indicates the prospects of positively supporting the incorporation of active learning in English language teaching.

Keywords: Active Learning, Achievement, Motivation, EFL English Language Class

Introduction

Nowadays, English language is one of the main languages widely used all over the world for communication. In Thailand, students spend many years in schools for studying English. However, according to the Education First proficiency index 2018 (Education First, 2018), English proficiency of Thai students were

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considerably lower than those in other countries in ASEAN. Moreover, they are not able to communicate in English. This problem might be the results from the teacher-centered teaching approach which is a predominant strategy used in EFL classrooms in Thailand (Fernquest, 2016). Evidently, teacher-centered approach which was applied in the EFL classroom made students feel bored and demotivated from learning English, and thus, they may then learn things passively without passion and meaning (Jeno, 2015). Therefore, it is very important for teachers to be able to apply appropriate teaching strategies to the lessons in order to enhance students' motivation and performance in the classroom. Active learning is evidently one of the student-centered teaching approaches which is beneficial for English language classrooms in terms of enhancing students' performance and motivation. With these reasons, teachers in educational institutes in Thailand were encouraged by the ministry of Education to adopt and incorporate the active learning into the lesson in the classrooms (Cheunsuang, 2017). Thus, in this study, active learning was used with the students in an English for Communication class in the 1st semester of academic year 2018 in Nakhon Pathom Rajabhat University. Therefore, this study intended to investigate the effects of active learning in English language learning whether or not the approach could enhance students' achievement, and increased the motivation of students who might have low motivation in learning English as a problem stated earlier. Moreover, this study employed the delayed post-test in order to investigate if the active learning had effects on students' knowledge retention as there were a few research studies that administered the delayed-post with students in the university level.

Objectives of the Study

The objectives of this study are as follows:

1. To study if the active learning had effects on students' English achievement.
2. To investigate if the active learning had effects on students' knowledge retention in English language learning as measured by a delayed posttest.
3. To examine if the active learning had effects on students' motivation.

Literature Review

1. Active learning

Active learning approach has been used in classrooms since 1990s. The approach today is used by many educators. It is defined as a mix of various

kinds of instructional activities. Importantly, active learning approach refers to the learning that is more durable and lasting when students are cognitively engaged in the learning process (Chinn, 2011). As claimed by Bonwell and Eison (1991) that anything that engages students in doing things and thinking about the things that they are doing can be referred as active learning. students who are actively engaged in lectures through dialogue, games, discussion, debate, role-plays, tasks, critical analysis and other active learning strategies tend to retain more information than their counterparts who are passive learners (Fayombo, 2012). Moreover, cooperative language learning, experiential learning, project-based learning, task-based learning, problem-based learning, inquiry-based learning, case studies, group discussion, role play, simulation, debates are the learning activities, teaching methods and approaches which are inclusive in active learning pedagogy (Agbatogun, 2014; Bonwell and Eison, 1991; Hung, 2015). Active learning is often contrasted to the traditional lecture (passive learning) where students passively receive information from the instructor (Bonwell and Eison, 1991). According to Chickering and Gamson, (1987), students do not learn much from only sitting in the classroom, listening to teachers, and memorizing. They must talk and get involved in what they are learning, write about it, relate it to past experiences, apply it to daily lives. In active learning, the learners are deeply absorbed in the learning process and consequently has a deeper understanding of the subject content. Learning itself is an active process which should involve learner's active participation in the learning process. Furthermore, various types of activities which allow students to engage during the class can increase students' motivation when they are engaged in different kinds of activities (Bonwell and Eison, 1991; Soltanzadeh, Seyed and Sakineh, 2013; Malik, 2011; Fasold and Connor-Linton, 2006). As the study conducted by Watanapokakul (2011) indicated that activities which allow students to be engaged or interact with their friends through authentic tasks in various kinds of situations can increase students' motivation and enjoyment. More importantly, O'Sullivan and Cooper, (2003); Christianson and Fisher, (1999) also supported that active learning can also help enhance learners' achievement and attitude. Besides, higher order thinking such as analysis, synthesis, evaluation can be developed by having chances in engaging with these activities namely, discussing, sharing their thoughts both to the group or to the class, using knowledge to solve problems and reflecting on what they are learning (Bonwell and Eison, 1991; Ndebele and Maphosa, 2013). Therefore, it was claimed by Bonwell and Eison (1991) that the active learning strategies are

superior to passive learning (lecture method) in supporting the development of student's skills in thinking and writing.

2. Passive learning

Drew (2017) described the definition of traditional lecture (passive learning) as a “form of learning that relies on information transmission from a teacher to a learner with little two-way interaction”. With this, students have to learn by absorbing the information presented by a teacher rather. Moreover, Brown (2018) and McWhorther (1996) stated that passive learning is the traditional method of learning which students are not engaged much in learning because the classroom mainly focuses on the teacher. In this teaching style, students only listen to the teacher and think about what they have heard, write down what the teacher says or follow the instructions. According to Brown (2018), the role of the students is only to receive the knowledge presented from the teacher passively.

3. Active learning benefits

Several research studies demonstrate the positive impact active learning can have upon students' learning outcomes. More specifically, active learning in the classroom has distinct advantages as suggested by Bonwell and Eison (1991); Malik (2011); Soltanzadeh, et al. (2013); Anderson, et al. (2005); Thaman, et al. (2013); Detlor, et al. (2012). The benefits can be summarized as follows:

- 1) Active learning increases content knowledge, critical thinking and problem-solving abilities.
- 2) Active learning promotes motivation and attention for learning autonomy in students.
- 3) Active learning promotes student positive attitudes/motivation towards learning.
- 4) Active learning promotes learning through collaboration and interaction with other students, engaging more deeply with the course content and building invaluable social skills.
- 5) Active learning promotes learning with real life situations as activities in the class allow students to use language in authentic settings.
- 6) Through involvement in activities, it increases the concept of self as students perceive that they have the ability to perform well in class and contribute to the group.
- 7) Active learning enhances long-term retention, understanding, and transfer have been found to be the result of learners' effortful work for those who are

engaged in active learning with sense-making activities (Callender and McDaniel, 2009).

4. The framework of active learning in this study

In general, active learning activities are considered as participatory techniques. As Bonwell and Eison (1991) stated, “instructional activities involving students in doing things and thinking about what they are doing”. The active learning approach focuses more on developing students’ skills than on transmitting information and makes students do something through reading, discussing, or writing that requires higher-order thinking through activities.

In addition, Fink (2003: 17) gave a more specific view on the active learning approach as “when students listen to a lecture or read a textbook, they are receiving “Information and Ideas”, an important part of the learning process but also one that is relatively passive. To make the learning more active, we need to learn how to enhance the overall learning experience by adding some kind of experiential learning and opportunities for reflective dialogue.” Then the holistic view of active learning was purposed. The conceptualization of active learning includes “getting information and ideas” as well as “experience” and “reflection” as shown in figure 1 below.

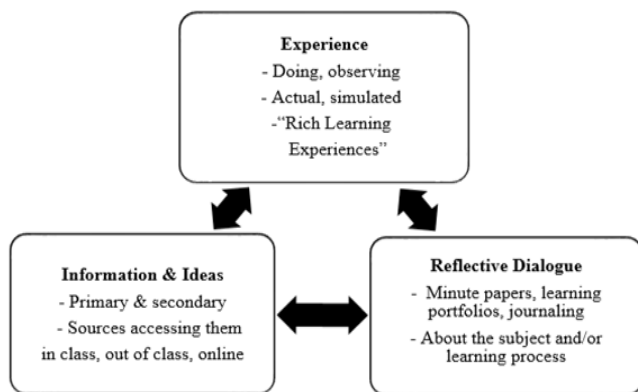


Figure 1 A Holistic View of Active Learning (Fink, 2003)

Fink (2003) also provided some ideas for the three components of active learning as follow: 1) Gathering details and ideas stage, teachers should give alternative ways of introducing students to the key information and ideas of the

course, such as some activities related to the course that help students get more ideas and information during teaching. 2) Rich learning experiencing stage, teachers should provide techniques such as pair work, group work, games, problem solving and role playing, etc. for the class as these activities allow students to acquire several kinds of significant learning simultaneously. 3) Reflecting stage, teachers should give students time and encouragement in order for them to reflect on their learning experience.

5. Related research studies

Active learning has been found to be beneficial for students in the classrooms as revealed through these following research studies. First, Sanitchai and Thomas (2018) conducted the study on the relationship between active learning and academic achievement among provincial university students in Thailand. The findings revealed that the correlation between active learning and academic achievement was at positive level. This implied that the implementation of active learning into the class had the positive effect on students' attitudes towards their academic achievement. Moreover, Sawangsri and Mitkrajang (2017) conducted the study to examine the effects of active learning on students' performance, learning achievement and attitude towards mathematics. The findings prevailed that the students' performance/behavior was at satisfaction level. Moreover, students' learning achievement was significantly different in a positive way. Finally, regarding of the attitude, it revealed that students had a positive attitude towards the subject. This can be concluded that active learning had a positive effect on students and should be applied into the class. Ningrum and Matondang (2017) studied the correlation between students' motivation and their achievement in reading with senior high school students in Indonesia. The results showed that the correlation between students' motivation and their achievement in reading was significantly high. Therefore, they suggested that active learning should be implemented in the class in order to increase the motivation of students in reading class. Taichay and Sitthitikul (2016) examined the effects of flipped classroom instruction on language accuracy and active learning environment with upper-secondary demonstration school students in the central area. The results of the study showed that there was a statistically significant difference on the students' improvement of language accuracy, and students' positive attitudes on the implementation of flipped classroom instruction, particularly in the part of active learning. This can be said that active learning can be used to promote the language accuracy and the attitude

of the student in English language classrooms. In addition, Hakulinen, Auvinen and Korhonen (2015) examined the effects of achievement badges (a form of gamification) on students' behavior in Finland. The study showed that achievement badges had a significance effect on students' motivation. Lastly, Ruiz-Primo et al. (2011) analyzed the studies that examined the effects of active learning approaches with undergraduate students studying biology, chemistry, engineering and physics courses. In general, it was discovered that the active learning approaches could improve students' achievement, although there are important concerning points that should be put in account before implementing the technique.

Research Methodology

1. Research design

This study is a mixed methods study using both quantitative and qualitative data collection in order to fully understand the effects of the implementation of active learning on Thai university students' achievement and motivation. The active learning approach was adapted and incorporated into the lesson plans which were used in teaching in the classrooms. The data sets received from the tests, questionnaires and semi-structured interview were complementary and could be used to affirm that the outcomes were related to the active learning approach and not from other variables.

2. Participants and research context

This research study took place in Nakhon Pathom Rajabhat University, located in the western region, which is about 75 kilometers away from Bangkok, the capital of Thailand. Nakhon Pathom Rajabhat University is a tertiary education institution with various faculties such as the Faculties of Management Science, Science and Technology, Humanities and Social Science, Nursing, and Education. Annually, the university has approximately 4,000 new enrolling students. All students participating in this study were first year students. In general, students in this study took 8-10 classes a week. The course book had six chapters which were used to teach during the semester in this subject. In this study, the participants were fortyfive first year non-English majoring students who had A2 level on CEFR framework and were studying the English for Communication Subject in 1st semester of the academic year 2018 at Nakhon Pathom Rajabhat University. Moreover, a convenience sampling technique was used as students were compulsory to study the subject. In this study, it focused on learners who spoke Thai as their mother

tongue; none of the students had studied in an international school, or had an experience in overseas education or used English abroad for more than three consecutive months and they were not taking any English tutorial classes outside of the university during the time that this study was being conducted.

3. Research instruments

This research study was a mixed methods research approach. The data were collected through different instruments which were pre and post-tests and delayed post-test, questionnaires and semi-structured interview.

The pre/post-tests and delayed post-test consisting of 40 items were employed to collect data in this study. The purpose of the tests was to investigate the effects of the implementation of active learning on students' English proficiency in vocabulary, grammar and reading. The test was adapted from an achievement test in teacher's resource of the teaching book (STRECH A2 Level, OXFORD). It was validated by three experts by virtue of the method of the Item Objective Congruence (IOC).

Furthermore, the questionnaire was also employed to collect data in this study. The purpose was intended to support the data collected through tests and interviews in order to make the study more insightful. A set of questionnaire which was adapted from the questionnaire developed by Gardner (1985), and consisted of 20 items in the 5 Likert's scales with open-ended questions. Moreover, the questionnaire was translated into Thai to avoid misunderstanding and to elicit appropriate responses because English is not the participants' native language.

In addition, semi-structured interview was employed to collect data in this study. The purpose of the interviews was to get more in-depth information which could validate the response given in the questionnaire. Nine students were selected from the range of the achievement scores. To elaborate, 3 best students, 3 medium-scoring students and 3 poorest students from various majors according to the scores of the achievement test were chosen for the interviews. The interview questions were validated by three experts by virtue of the method of the Item Objective Congruence (IOC). The interviews were carried out in Thai language in order to help the interviewees to fully understand and answer the research questions.

The research instruments were also validated by three experts by virtue of the method of Item Objective Congruence (IOC). Then, they were piloted with a group of students who shared the same characteristic with the participants in the

study. By doing this, Cronbach's Alpha (Statistics How To, 2017) was adopted to measure the reliability of the questions presented in the questionnaire. The main goal of conducting a pilot study was to ensure that the research instruments were reliable and consistent, and did not cause any confusion among the participants. Thus, the research instrument was required to have the reliability of 0.7 or higher. The reliability value of the questionnaire questions was 0.81, which was an acceptable level.

4. Active learning lesson plans

The lesson plans for the class in this study were based on the model from Saiphet (2018: 41), which was adapted from Bonwell and Eison (1991) and Fink (2003) as presented in Figure 2 and then adapted in order to be appropriate for the students. In general, the teaching period for English for Communication class was 2 hours and 50 minutes. For the lesson plan, the tasks from the active learning model were designed in order to be relevant to the content in the course book. Moreover, the lesson plans were designed in order to be related to the six chapters in the book. Thus, it means that each lesson plan was used to cover two teaching periods. More importantly, the lesson plans were validated by three experts to make sure that the tasks in the lesson plan were in accordance with the active learning model. Then, the lesson plans were then piloted with a group of students with the same characteristics as the participating students. Finally, the lesson plans were adjusted to improve their practicality for normal classes. The conceptual framework of active learning for English language teaching used in this study comprises three stages as follows: 1: Gathering details and ideas, 2: Experiencing, and 3: Reflecting

In stage 3, students were allowed to use Thai language in order for them to express their reflections freely and clearly.

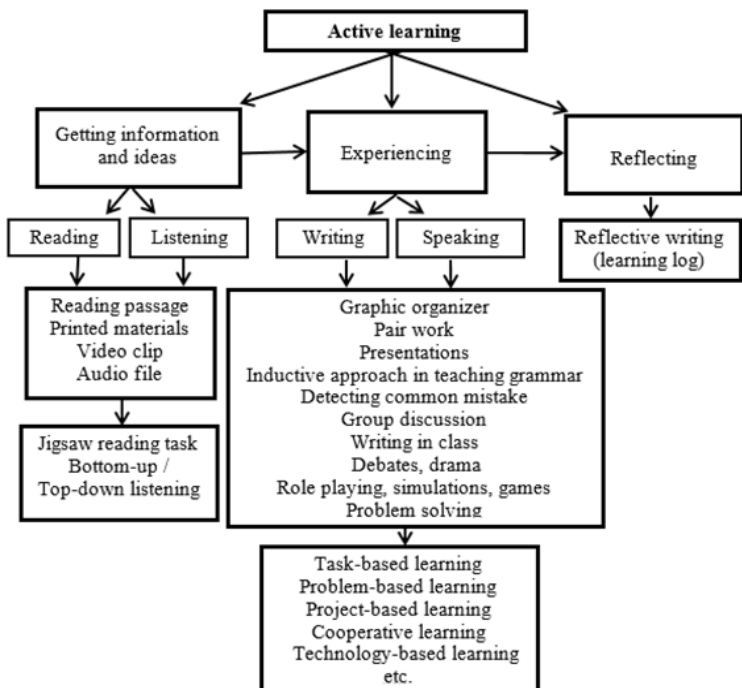


Figure 2 Active Learning Conceptual Framework (Saipheth, 2018: 41)

5. Data collection procedures

5.1 The questionnaire and the tests were trialed with a group of students from the previous semester, who shared the same characteristics with the participating students. It was subsequently edited according to comments.

5.2 At the first week of the semester, the participants were informed by the researcher about the purpose, ethical issues, and given the consent forms. They were also given the option to withdraw at any time without negative consequence.

5.3 On the same week, the pre-test, used to find out the participants' English language proficiency before they studied was distributed to participants. Moreover, the questionnaire was administered to participants in order to investigate participants' motivation towards learning English before the class began.

5.4 On the 12th week, the post-test, used to detect the progress of the achievement knowledge was given to participants.

5.5 The delayed post-test was administered 3 weeks after the post-test distributed in order to find out whether participants still had the knowledge of what they have studied on reading comprehension. According to Schmitt (2010: 157), “a delayed posttest of three weeks should be indicative of learning which is stable and durable”. The delayed posttest was administered to investigate the retention of what they have studied.

5.6 At the end of the semester, the same motivation questionnaires but consisted of open-ended question were distributed to investigate if students’ motivation increased after active learning was implemented. The questionnaire was translated into Thai to help participants understand the questions clearly and to be able to answer from their understanding. Apart from that, the interview sessions with nine students selected from the range of the achievement scores were conducted in order to assess or examine their motivation after they had studied in the class. The interviews were conducted in the classroom and were done in Thai in order for participants to understand the questions clearly and be able to convey their answers from their understanding.

6. Data analysis

The framework for data analysis was based on the SPSS which was used to analyze data gained from t-test and delayed post-test in order to get the descriptive statistics. Moreover, the data obtained from the questionnaire were transformed into descriptive statistics including means and standard deviations (S.D.). The findings were analyzed based on the five-point Likert scale ranging from 5 to 1 (strongly agree, agree, moderate, disagree, and strongly disagree), adapted from Gardner (1985). In addition, the average scores were interpreted using the interpretation key suggested by Srisa-ard (2002) as shown in Table 1 below.

Table 1 Scales for Interpreting Quantitative Data from Questionnaires

Score Range	Interpretation
4.51 – 5.00	highest
3.51 – 4.50	high
2.51 – 3.50	moderate
1.51 – 2.50	low
1.00 – 1.50	lowest

Moreover, the differences between the pre and post experimental process were tested at the level of 0.05 significant through the method of t test.

The data obtained from the open-ended questions and the semi-structured interview questions were transcribed and then analyzed by using content analysis. The data were then categorized into themes by grouping similar ideas together.

Results

1. The Results of Participants' Proficiency

The results of participants' proficiency were obtained from one type of data collection which is achievement tests (pre-test, post-test, delayed post-test). The results are used to assess the effects of active learning on students' proficiency.

1.1 The results of achievement test

The results of achievement test (pre-test, post-test, delayed post-test) which were used to study the effects of active learning on students' English proficiency and the retention of what have been taught are presented in Table 2.

Table 2 The Results of Participants' Proficiency from Achievement Tests

Achievement Test	Pre-test		Post-test		Delayed Post-test		Mean (\bar{X}) dif. (pre & post-tests)	Mean (\bar{X}) dif. (post & delayed post-tests)	Sig. (2 tailed) (pre & post-tests)	Sig. (2 tailed) (post & delayed post-tests)
	Mean \bar{X}	SD	Mean \bar{X}	SD	Mean \bar{X}	SD				
Achievement Test Results	17.09	3.12	22.42	2.79	24.94	2.54	5.33	2.52	.011	.004

* $p < 0.05$ level

According to Table 2, the findings show the students' overall proficiency from achievement tests as in pre-test, post-test and delayed post-test. In the pre-test, the average score of students 'achievement test was at 17.09 (SD 3.12). In the post-test revealed the average score of students 'achievement test at 22.42 (SD 2.79). Finally, the delayed post-test has shown the average score of students 'achievement test at 24.94 (SD = 2.54). From the Table, it also shows the results of paired sample test obtained from achievement test. It was found that the mean

difference of students' proficiency of pre-test and post-test was 5.33. Moreover, it was discovered that the mean difference of students' proficiency of post-test and delayed post-test was 2.52. More importantly, in terms of significant difference, the results indicated that there is a significant difference in an increase in students' proficiency pre-test and post-test at 0.05 level ($\text{sig} = .011$) showing that students' proficiency increases significantly. Most importantly, the results also revealed that there is a significant difference in an increase in students' proficiency post-test and delayed post-test at 0.05 level ($\text{sig} = .004$) indicating that students' proficiency increases significantly. Thus the results in Table 2 demonstrate that active learning are able to increase students' English proficiency.

2. The results of participants' motivation

The results of participants' motivation were obtained from three types of data collection which are questionnaire, open-ended questions and the semi-structured interviews. These results are used to assess the effects of active learning on students' motivation.

2.1 The results of questionnaire

The results of questionnaire which was used to study the effects of active learning on students' motivation are presented in Table 3.

Table 3 The Overall Motivation Results of the Pre-test and Post-test from Motivation Questionnaire

Motivation	Pre-test		Post-test		Mean (\bar{X}) dif.	Sig. (2-tailed)
	Mean \bar{X}	SD	Mean \bar{X}	SD		
Motivation Results	3.85	0.27	4.17	0.21	0.32	.001

* $p < 0.05$ level

This part revealed the findings of students' overall motivation from pre and post questionnaires. As it can be seen from Table 3, the findings revealed that the students' overall motivation before the implementation of active learning in the class was at the high level ($\bar{X} = 3.85$, $SD = 0.27$). In addition, the findings showed that the overall motivation from the students after the implementation of active learning in the class was at the high level ($\bar{X} = 4.17$, $SD = 0.21$). From the Table, it also displays the results of paired sample test obtained from the pre and post

questionnaires. It demonstrates that the mean difference of students' overall motivation was 0.32. Furthermore, in terms of significant difference, the results revealed that there is a significant difference in an increase in student' motivation from before and after the active learning implemented in the classes at 0.05 level ($\text{sig} = .001$) showing that motivation increases significantly. This can be said that the active learning can help enhance students' motivation in English language learning.

2.2 The results of open-ended question and semi-structured interview

The results of open-ended question and semi-structured interview, which were designed to assess the effects of the implementation of active learning on students' motivation in more details and also identify the negative outcomes from the implementation of active learning in the classrooms, are presented below.

- Active learning enhanced learners to feel more attentive and passionate when they were studying and have a desire to learn more.
- Active learning increased more enjoyment and fun.
- Active learning helped in reducing stress and anxiety.
- Active learning increased confidence, opinion expression and a sense of autonomy.

On the other hand, there also were some negative effects of the implementation of active learning in the classrooms as shown below.

- Active learning caused the feeling of disliking to participate in group activities.
- Active learning caused the feeling of anxiety and stress when participating in group activities.

From the findings, it can be generally said that students perceived the implementation of active learning in the classrooms positively. However, there were some negative effects that were reported and teachers should take these into account before they implement the active learning in the classroom.

Discussion

The data obtained from pre/post and delayed post-tests, questionnaires, and interviews were analyzed and discussed in order to answer the research questions as follows;

Research questions 1 and 2 respectively: Does active learning have effects on students' English achievement knowledge? And does active learning have effects on students' knowledge retention?

Based on the analysis of the results obtained from the t-test and delayed post-tests which were used to study the effects of active learning on students' English achievement knowledge and the retention of the knowledge, the findings showed that after experiencing the active learning, the learners' proficiency increased significantly. That is to say, active learning was able to increase learners' proficiency and the retention of the experienced knowledge. According to the results from the tests, it is evident that research has found that higher learners' achievement and engagement were associated with instructional method of active learning techniques. It can also be said that active learning can promote learner's achievement, enhance learner's motivation, change learner's attitudes, and cause learners to learn more because it provides a wide varieties of learning styles which allow learners to be engaged in or interact with their friends (Thaichay and Sitthitikul, 2016; Fayombo, 2012; Ruiz-Primo et al., 2011). It is supported from Freeman, et al. (2014)'s meta-analysis of 225 studies revealed that there was the improvement of exam scores and the decrease of failure rates when active learning strategies were applied in the classrooms. Moreover, as claimed by Sawangsri and Mitkrajang (2017); O'Sullivan and Cooper, (2003); Christianson and Fisher, (1999) that active learning can increase students' achievement, attitude and motivation. Moreover, in terms of knowledge retention, the findings showed that after experiencing the active learning used in the classrooms, the learners' experienced knowledge had been maintained. To put it simply, active learning strategies are able to enhance the retention of the experienced knowledge. As supported by Bertsch et al. (2007); Callender and McDaniel (2009) that long-term retention, understanding, and transfer have been found to be the results of learners' effortful work who are engaged in active learning with sense-making activities. Students who are actively engaged in lectures through dialogue, games, discussion, debate, role-plays, tasks, critical analysis and other active learning strategies tend to retain more information than their counterparts who are passive learners (Fayombo, 2012). As it was also claimed by Berry (2008) that active learning increases retention of concepts over time. Furthermore, Fasold and Connor-Linton (2006) stated that various and challenging instructional activities help learners to concentrate and engage in learning and facilitate the second language learning process. Moreover, teachers have to rearise and carefully consider the activities and the materials used in the classroom in order to make learning meaningful, Therefore, Brown (2014) said, "Meaningful learning will lead toward better long-term retention than rote learning."

Research question 3. Does active learning have effects on students' motivation?

The results were obtained from three types of data collection which are the questionnaire, open-ended questions and semi-structured interview in order to assess the effects of active learning on students' motivation.

With reference to the results from questionnaire, the findings revealed that after experiencing the active learning applied in the classrooms, the participants' motivation has increased significantly. More importantly, the results from the questionnaire were correlated with active learning proposed by Bonwell and Eison (1991); Malik (2011); Soltanzadeh, Seyed and Sakineh (2013) as they stated that a classroom with a wide varieties of activities that allow learners to engage during studying can increase learners' motivation. Most importantly, active learning with a wide variety of learning styles, can promote learner's achievement, enhance learner's motivation, change learner's attitudes, and basically, cause learners to learn more (Sanitchai and Thomas, 2018; Ningrum and Matondang, 2017; Fayombo, 2012). According to Gardner (2007), the materials and activities implemented by a teacher are significant in influencing the student's level of motivation and performance. Therefore, it can be said that the learners' motivation from this study increased may come from the active learning implemented in the classrooms. Moreover, the results of these findings seem to be congruent with the studies in the literature which claim that the strategies promoting active learning are superior to passive learning (lectures) and consistent with the approach proposed by Bonwell and Eison (1991); Malik (2011); Soltanzadeh, Seyed and Sakineh (2013). In addition, the data obtained through the open-ended question and semi-structured interviews also agreed on the same direction that students perceived the implementation of the approach in the positive way and had high level of motivation. The results were correlated with what Wilke (2003) mentioned as active learning approach offers students' opportunities to participate in a wide varieties of activities and these make students feel more interested and enjoyable in the class than focus on the text only. Moreover, it was mentioned that the competition nature of the games, tasks and authentic setting activities can create a good learning environment and encourage learners to participate, also enhance the enthusiasm and passion for learning in the class (Hakulinen, Auvinen and Korhonen, 2015). In terms of reducing stress and anxiety, Worde (2003) claimed that having a relaxing classroom environment can help reduce anxiety and stress as well as learners gain motivation

to study. Thus, a cooperative learning environment as part of active learning is believed to reduce stress and anxiety and give more opportunities for students to perform a language (Kagan, 1994). Additionally, with reference to the findings, students' self-confidence has increased according to the active learning activities provided in the class. The results are congruent with the study conducted by Ndebele and Maphosa (2013) that students develop their self-esteem through the involvement in activities in the class. To put it simply, the concept of self has increased via the activities as they acknowledge that they are capable to perform well in class and contribute to the group such as answering questions, discussing or expressing opinions, and winning the group competitions. This can help them perform better in the class. Importantly, after learners gain the confidence and interest in learning, they then become autonomous learners (Harizaj, 2015; Huang, 2008). In other words, they are able to learn by themselves on what they are interested in.

On the other hand, the results obtained from both the open-ended question and semi-structured interviews, pointed out that there were negative effects from the implementation of the active learning in the classrooms which can be categorized and described as follows. The findings showed that some students did not like the active learning as they had to work in groups. They reported that some of the group-members did not provide assistance for the groups. It seemed that they did not want to do anything to help the group. With reference to the active learning activities such group games, competitive tasks, group-discussion, presentation and brainstorming which students had to participate in groups, Vygotsky (1978) stated that the interactions in group work can help and fulfill needs to make the language comprehensible to both the learners and advanced peers. However, from the findings, it is evident that some of students did not like to participate in group activities. To support the findings, it is correlated with Yusuk (2018), who mentioned that students felt bored when the teacher assigned them to work in pairs or groups because some of group-mates did not do the assignment. Furthermore, some students did not like to work in groups or pairs because when they encountered problems, namely difficult vocabulary or incomprehensible content, and then they asked advanced peers, the advanced peers did not help them or sometimes were frustrated at. These findings can also refer to the research conducted by Cacioppo and Freberg (2013) as he argued that active learning puts an emphasis on group work. It is culturally relevant in Asia;

however, group work can contribute to a community in which some students do not do their duty of the work. Moreover, it showed that some students did not feel satisfied with the active learning especially when they had to work in group. As stated by McInerney, McInerney and Marsh (1997), there is some evidence suggesting that students who have high levels of anxiety and stress can perform better in teacher-centered approach (lectures), and students who have low levels of anxiety and stress can perform better in cooperative, interactive learning activities. On the other hands, some studies indicated that active learning classes can also cause challenges for learners who have high levels of anxiety and stress. To elaborate, students can feel stressed or anxious, when they work on an in-class assignment or groups and realize that they are not able to solve a problem. Moreover, they can feel stressed or anxious when they work in groups and evaluated by other students or the instructor (Stipek, 1993). Thus, from the reported findings, some students receiving negative effects from the active learning especially from group-work may be due to the differences in individual learning style or cultural context, which should be taken into teachers' consideration before applying this into the classrooms.

Overall, the results from the open-ended questions and semi-structured interview showed that after learners experiencing the active learning implemented in the classrooms, the learners' motivation has increased significantly. However, there were also some negative effects reported in open-ended question and semi-structured interviews after the active learning was implemented in the classrooms. Thus, it can be said that active learning implemented in the classrooms had effects on students' motivation and performance. Moreover, some concerning points were pointed out and should be taken into teachers' consideration before implementing into the English language classrooms.

Conclusion and recommendation

This present study aimed to investigate the effects of the implementation of active learning in Thai university students' English language classroom on 2 aspects which are 1) the achievement, and 2) the motivation. In general, the results from pre/post-tests and delayed post-test and questionnaire revealed the positive effects of active learning in enhancing students' achievement and motivation. Moreover, the findings from the open-ended questions and the semi-structured interview questions also unveiled both positive and negative effects of implementing

active learning in the classrooms. With these findings, they are congruent with the study conducted by Roach (2014) as it was found that active learning can alter students' perceptions towards English language learning positively. However, the overall results indicated the prospects of positively supporting the incorporation of active learning strategies in teaching. Importantly, students who studied in the class have perceived positively with learning through action or active learning that were implemented. In addition, the findings suggested that there were also some concerning points which should be taken into teachers' consideration before applying the active learning into English language classroom. The main concerning point was grouping. To avoid this, students should be allowed to choose classmates for grouping by themselves and the number of group members should be flexible (example 3-5 people in a group) so that they can work together with their close friends from the same major. In this study, grouping was randomly done through game at the first class and the number of group members was not flexible (4 people in a group) which made it difficult for them to work in group. To elaborate it, they were put in a group with other students from different majors and did not know each other. Moreover, institutes and teachers are significantly beneficial from the findings of this study in terms of pedagogical implementation as it can be considered as a guidance for developing English language courses in order to promote practices and enhance students' achievement and motivation in learning English. More importantly, according to the limited numbers of the participants in this semester, a larger number of them should be asked to participate to see if the results are comparable to the one presented in the current study.

References

- Agbatogun, A. O. (2014). "Developing earners' second language communicative competence through active learning: Clickers or communicative approach?" **Educational Technology & Society**, 17(2), 257-269. Retrieved May 25, 2017, from <https://eric.ed.gov/?id=EJ1031022>.
- Anderson, W. L., Mitchell, S. M., and Osgood, M. P. (2005). Comparison of student performance in cooperative learning and traditional lecture-based biochemistry classes. **Biochem. Mol. Biol. Educ.** 33(6), 387-393.
- Berry, W. (2008). Surviving lecture: A pedagogical alternative. **College Teaching**. 56(3), 149-153.

- Bertsch, S., Pesta, B., Wiscott, R., & McDaniel, M. (2007). **The generation effect: A meta-analytic review.** *Memory & Cognition*, 35, 201–10. Retrieved April 5, 2017, from <https://doi:10.3758/BF03193441>.
- Bonwell & Eison, J. A. (1991). **Active learning: Creating excitement in the classroom.** Washington, D.C.: School of Education and Human Development. Retrieved March 25, 2016, from <https://eric.ed.gov/?id=ED336049>.
- Brown, H. D. (2014). **Principles of language learning and teaching: A course in second language acquisition.** New York: Pearson.
- Brown, G. (2018). **Difference between active learning and passive learning.** Retrieved September 15, 2019, from <http://www.differencebetween.net/miscellaneous/careereducation/difference-between-active-learning-and-passive-learning/>
- Cacioppo, J., & Freberg, L. (2013). **Discovering psychology: The science of mind.** Belmont, CA: Wadsworth.
- Callender, A. A., & McDaniel, M. a. (2009). The limited benefits of rereading educational texts. **Contemporary Educational Psychology**. 34, 30–41. Retrieved September 15, 2018, from <https://doi:10.1016/j.cedpsych.2008.07.001>.
- Cheunsuang, O. (2017). Learning to learn: Spotting hidden challenges for Thai veterinary students. **Thai Journal of Veterinary Medicine**. 47, 307. Retrieved August 15, 2017, from <http://www.vet.chula.ac.th/vet2014/Ebook/ebook/CUVC-2017/pdf/Abstracts/307.pdf>
- Chickering, A., & Gamson, Z. (1987). Seven principles for good practice in undergraduate education. **American Association for Higher Education**. Retrieved January 20, 2017, from <http://eric.ed.gov/?id=ED282491>
- Chinn, C. A. (2011). **Educational psychology: Understanding students' thinking.** New York, NY: Rutgers.
- Christianson, R., & Fisher, K. (1999). Comparison of student learning about diffusion and osmosis in constructive and traditional classrooms. **International Journal of Science Education**, 21, 687698.
- Detlor, B., Booker, L., Serenko, L., & Julien, H. (2012). Student perceptions of information literacy instruction: The importance of active learning. **Education for Information**, 29(2), 147-161. Retrieved April 25, 2017, from <https://doi.org/10.3233/EFI-2012-0924>

- Dörnyei, Z. (1998). Motivation in second and foreign language learning. **Language Teaching**, 31, pp. 117-135. Retrieved March 29, 2017, from [https://doi:10.1017/S026144480001315X](https://doi.org/10.1017/S026144480001315X)
- Dörnyei, Z. (2007). **Research methods in applied linguistics**. Oxford, England: Oxford University Press.
- Drew, C. (2017). **11 examples of passive learning**. Retrieved September 15, 2019, from <https://helpfulprofessor.com/passive-learning/>
- Education First Proficiency Index** (2018). Retrieved January 16, 2019, from <https://www.ef.com/wwen/epi/regions/asia/thailand/>
- Fasold, R., & Connor-Linton, J. (2006). **An introduction to language and linguistics**. Cambridge: Cambridge University Press.
- Fayombo, G. A. (2012). Active learning strategies and student learning outcomes among some university students in Barbados. **Journal of Educational and Social Research**, 2 (9), 79–90. Retrieved May 2, 2017, from <http://dx.doi.org/10.5901/jesr.2012.v2n9p79>
- Fernquest, J. (2016). **What just happened to education in Thailand?** Retrieved May 24, 2018, from <https://www.bangkokpost.com/learning/work/910860/what-just-happened-to-education-in-Thailand>.
- Fink, L. D. (2003). **Creating significant learning experiences: An integrated approach to designing college courses**. San Francisco: Jossey-Bass Publishers.
- Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2014). Active learning increases student performance in science, engineering, and mathematics. **Proceedings of the National Academy of Sciences of the United States of America**, 111, 8410–5. Retrieved August 20, 2017, from [https://doi:10.1073/pnas.1319030111](https://doi.org/10.1073/pnas.1319030111)
- Gardner, R. C. (1985). **Social psychology in second language learning**. Edward Arnold Ltd, London, Great Britain.
- Gardner, R. C. (2007). **“Motivation and second language acquisition.”** *Porta Linguarum* 8: 9-20. Retrieved March 12, 2010, from <https://www.scribd.com/document/62740724/Gardner-2007-Motivation-and-Second-Language-Acquisition>.

- Hakulinen L., Auvinen T., & Korhonen A. (2015). "The effect of achievement badges on students' behavior: An empirical study in a university level computer science course", **International Journal of Emerging Technologies in Learning**, Macau, 2015, pp. 18-29.
- Harizaj, M. (2015). "Discussion as an active learning in EFL." **European Scientific Journal**, 11(16), 231-236. Retrieved June 22, 2017 from <https://eujournal.org/index.php/esj/article/viewFile/5866/5589>.
- Huang, L. (2008). "**Using guided, corpus-aided discovery to generate active learning.**" *English Language Forum* 4: 20-27. Retrieved April 3, 2017, from <https://files.eric.ed.gov/fulltext/EJ1096308.pdf>.
- Hung, H. (2015). "Flipping the classroom for English language learners to foster active learning." **Computer Assisted Language Learning**, 28 (1): 81-96. Retrieved September 21, 2018, from <https://www.tandfonline.com/doi/abs/10.1080/09588221.2014.967701>.
- Jeno, L. M. (2015). "Encouraging active learning in higher education: A self-determination theory perspective." **International Journal of Technology and Inclusive Education**, 2 (1): 707-712. Retrieved January 2, 2016, from <https://pdfs.semanticscholar.org/634c/6cd3c2580cb6951ac0cc95998353947e9e67.pdf>.
- Kagan, S. (1994). **Cooperative Learning**. San Clemente, CA: Kagan Publishing.
- Malik, S. (2011). "**Active learning: An effective approach for large classes.**" *IPEDR* 5: 214-217.
- McInerney, V., McInerney, D. M., & Marsh, HW. (1997). Effects of metacognitive strategy training within a cooperative group learning context on computer achievement and anxiety: An aptitude-treatment interaction study. **Journal of Educational Psychology**, 89(4), 686-695.
- McWhorther, K.T. (1996). **Study and critical thinking skills in college**. Niagara County Community College: Pearson.
- Ndebele, C, & Maphosa, C. (2013). "Promoting active learning in large class university teaching: Prospects and challenges." **Journal of Social Science**, 35(3), 251-262. Retrieved February 1, 2017, from <https://doi.org/10.1080/09718923.2013.11893164>.
- O'Sullivan, D., & Cooper, C. (2003). Evaluating active learning: A new initiative for a general chemistry curriculum. **Journal of College Science Teaching**. 32, 448-452.

- Roach, T. (2014). Student perceptions toward flipped learning: New methods to increase interaction and active learning in economics. **International Review of Economics Education**. 17: 74-84.
- Saipheth, P. (2018). The effects of active learning on Thai university students' motivation to learn English. **The International Journal of Interdisciplinary Educational Studies**, 13 (4), 37-50. Retrieved November 12, 2017, from doi:10.18848/2327-011X/CGP/v13i04/37-50.
- Ningrum, S. & Matondang, S. (2017). The correlation between students' motivation and achievement in reading comprehension. **The International Journal of Social Sciences and Humanities Invention**. 5. 10.18535/ijsshi/v4i7.10.
- Sanitchai, P. & Thomas, D. (2018). The relationship of active learning and academic achievement among provincial university students in Thailand. **APHEIT International Journal**. 7, 47-61.
- Sawangstri, B. & Mitkrajang, K. (2017). **The effect of active teaching to enhance undergraduates' learning achievement**. 6th International Symposium on the Fusion of Science and Technologies (ISFT2017). Retrieved April 6, 2017, from http://www.rdi.rmutsb.ac.th/SC/56.5BSC0065D_F.pdf
- Schmitt, N. (2010). Researching vocabulary. **A Vocabulary Research Manual**. University of Nottingham UK.
- Soltanzadeh, L., Seyed R. N. H., & Sakineh S. (2013). "The effect of active learning on academic achievement motivation in high school students." **Archives of Applied Science Research**, 5 (6): 127-131. Retrieved January 15, 2018, <https://pdfs.semanticscholarfrom.org/6900/a3ef1464c0213ceda854456c275294a15f9d.pdf>.
- Stipek, D. J. (1993). Motivation to Learn. **From Theory to Practice**. Needham Heights, MA: Allyn & Bacon
- Thaichay, T. & Sitthitikul, P. (2016). Effects of the flipped classroom instruction on language accuracy and learning environment: A case study of Thai EFL upper-secondary school students. **Rangsit Journal of Educational Studies**. 3(2), 35-64.
- Thaman RG, Dhillion SK, Saggar S, Gupta MP, & Kaur H. (2013). Promoting active 'learning in Respiratory Physiology - positive student perception and improved outcomes. **National Journal of Physiology Pharmacy and Pharmacology**. 3(1), 27-34.

- Vygotsky, L. (1978). **Mind in society**. Cambridge, MA: Harvard University Press.
- Watanapokakul, S. (2011). "Supplementary materials for active learning: Development and implementation." **E-Journal for Researching Teachers**, 4 (1), 1-22. Retrieved May 27, 2016, from <http://www.culi.chula.ac.th/Research/e-Journal/2011/Satita.pdf>.
- Wilke, R. (2003). The effect of active learning on student characteristics in a human physiology course for non-majors. **Adv Physiol Educ.** 27, 207-23.
- Worde, R. (2003). **Students' perspectives on foreign language anxiety**. Retrieved September 4, 2010, from <http://www.vccaedu.org/inquiry/inquiry-spring2003/i-81-worde>. Html.
- Yusuk, S. (2018). Effects of zone of proximal development based scaffolding techniques on reading comprehension of Thai university students. **Journal of Thai Interdisciplinary Research**. 13(4), 1-6.