

The Effects of Blended Learning Model on EFL Students' Self-Regulated Learning

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Abstract

This research aimed to investigate the effects of blended learning model on EFL students' self-regulated learning. The participants were twenty first-year students in accounting who enrolled in English for communication course in the first semester in the academic year of 2021 at That Phanom College, Nakhon Phanom University. The instruments of the study were blended learning model developed by the researcher, twelve lesson plans, and self-regulated learning questionnaire. The data were analyzed by using percentage, mean, standard deviation, The Index of Item Objective Congruence (IOC), and Cronbach's Alpha Coefficient.

The findings reviewed that the students' self-regulated learning was developed after learning in English for communication course through blended learning model. The level of self-regulated learning before learning through the model was at fair level, and the level of self-regulated learning after learning through the model was at very high level. All of self-regulated learning sub-skills were higher in terms of environment structuring, time manage, goal setting, help seeking, task strategies, and self-evaluation.

Keywords: Blended Learning Model, EFL students, and Self-Regulated Learning

Rationale

In current era, digital technology plays a significant role in various sectors, including education. It can be applied with other teaching approaches to promote the students' learning. This technology may be mixed with lecture, workgroup, discussion, placement, and other related parts to provide the students with learning opportunity. From all types of educational technologies, online learning can be considered as an important way which is widely utilized.

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This platform has been numerously used via internet network to promote learning and teaching management. According to Dawley (2007), he indicates that learning can be more enhanced through online channel at present. This enables the students to obtain experiences by activating their motivation with a variety of learning methods. However, this platform is only a part of learning supplement. Online learning should not be used in the whole procedure for learning and teaching management. The reason is that the interaction in classroom is still essential for the students' learning and practice (Clark & Mayer, 2011). Therefore, various learning way should be properly mixed in each context for more effective learning. This learning method can be called "Blended Learning".

Blended learning is a learning method in which technology is integrated into learning way through using online learning for supplementing face to face activity (Allan, 2007). It can be mentioned that this type of learning is combination between face to face and online learning or computer mediated approach (Graham, 2006). Normally, blended learning mainly contains two elements which are face to face and online parts. For face to face learning part in term of blended learning, it is the way supporting the students to interact with the other people in the classroom for discussing information, presenting contents, and doing related activities etc. Face to face learning can be considered as a significant part since the students are able to directly communicate with their teacher and peers (Allan, 2007). Moreover, this learning part enables teachers to observe students' progress, answer students' questions, and give students feedback immediately. Also, content can be supplemented and concluded for more understanding (Martyn, 2003). As the next part, online learning is utilized. This is also an essential thing of blended learning. An online learning can promote students to search information or content via digital technology that is in form of internet platform. Accessibility of applications in computer or smart phone is involved and utilized. Students can search information or content and communicate with other people for their self-study by using social network (Graham, 2006). From the aspects of blended learning, the combination between face to face and online learning seems to be more effective than using only one way for learning and teaching. Besides, blended learning is also associated with self-regulated learning which is considered as an important learning skill for effective learning. It is necessary for the learners to take more responsibility in terms of learning processes. They need to set goal, manage time, make plan or strategy, monitor task, and evaluate outcome etc. From the mentioned learning aspects, it is dramatically related to self-regulated learning. It emphasizes more independent learning in which learners control

their learning rather than traditional learning approach. Numerous educators agreed that self-regulated learning plays an important role for education (Ramdass & Zimmerman, 2011). Moreover, a group of educational psychologists also claimed that self-regulated learning is the key for successful learning (Cleary & Zimmerman, 2004).

Normally, self-regulated learning can be considered as an active process or constructive process. From this learning process, learners set their learning goals as guidance, and then they attempt to control their cognition, motivation, including behavior navigated by their learning goals (Pintrich, 2000). It can be expressed that this learning process promotes learners in parts of managing thought, motivation, and behavior for achieving their goals. According to the concepts of Pintrich & Zusho (2002) and Zimmerman (2000), the circle of self-regulated learning is presented. This circle contains three phases. The first phase is forethought and planning. For this phase, learners set learning goals and specify plans and strategies as the means for completing learning tasks. The next phase is performance monitoring. For this phase, learners employ plans and strategies to operate the related tasks. Besides, they also monitor the effectiveness of plans and strategies that are used for operating learning tasks. The final phase is reflection on performance. For this phase, learners evaluate learning outcomes after plans and strategies have been used for completing learning tasks and achieving learning goal. Then, learners revise plans and strategies for more effectiveness.

According to the aspects of self-regulated learning and blended learning, they are quite associated to each other. Obviously, the learners, which learn through blended learning, have tendency to become self-regulated learners. The main reason is that blended learning is more flexible than traditional method in which learners are promoted to learn anything in anywhere and anytime. Furthermore, the learners can be motivated and engaged in what they are learning (Stein & Graham, 2014). From learning via this method, teacher center will be changed to student-center. Therefore, the learners will be supported to make decisions for their learning. As teachers, they will act as facilitators who provide learners with learning processes and resources for supplementing their self – study. Certainly, learning by using this way, they need to set goals, make strategies or plans, and evaluate outcomes. The association between self-regulated learning and blended learning seems to be consistent with the study of Banditvilai (2016), it points out that blended learning enables the learners to be stimulated for active learning. They are guided regarding the means to obtain information or knowledge by their teachers, then this group of learners need to search information or knowledge by themselves

before joining the classroom. As the research of Picciano (2006), it indicates that the learners are supported to be more responsible for their learning. They are necessary to make decisions about learning, plan for achieving tasks, and operate according to the specified plan for accomplishing their learning purposes before being supplemented about the content or knowledge by the teacher.

Although it can be claimed that blended learning is a way to enhance self-regulated learning, it may be argued that this learning approach tends to be suitable for learners who have self-study skill since part of online learning mode requires learners to control their own learning. From above issue, it means that more research in this area is still needed to emphasize the effects of using blended learning in learning and teaching for promoting self-regulated learning from different and various conditions. For blended learning model developed by the researcher, it was conducted with the EFL students studying in the program of accounting. This model was implemented in English for communication course. English communicative skills in various situations were contents of the course. They supported the students to use English skills, especially listening and speaking skills, for communication in different events. Therefore, these different contexts of both participants and learning contents were operated to investigate and emphasize the effects of the model toward the students' self-regulated learning. Besides, it was also hoped that the results of the research could be a guide for adaptation and development for more effectiveness of English learning and teaching.

Research Questions of Research

What are the effects of blended learning model on EFL students' self-regulated learning?

Purposes of Research

The purpose of research is to investigate the effects of blended learning model on EFL students' self-regulated learning.

Scope of Research

The study consists of two variables, which are explained as follows:

1.) Independent Variable

Research' independent variable is blended learning model developed by the researcher.

2.) Dependent Variable

Research's dependent variable is the level of self-regulated learning after learning through blended learning model.

The variables of this research can be concluded as follows:

Theoretical Framework

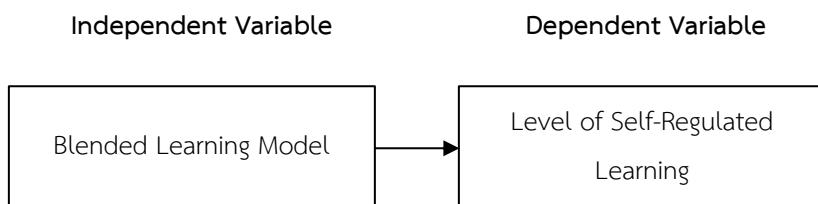


Figure 1 Theoretical Framework

Research Methodology

Research Design

This research was conducted in form of a single group of quasi-experimental research, which was operated as quantitative method. The data was normally gathered in a numeric form. It can be put in categories or rank order or measured in a measurement unit. Graphs and tables can be created for presenting numeric data (Black, 1999). For variables of the study, blended learning model, which was developed by the researcher, is considered as the independent variable, and the level of self-regulated learning is presented as the dependent variable. As the experiment of this research, the students were taught through utilizing blended learning model in English for communication course for 17 weeks with 12 lessons. This group of students was required to respond the self-regulated learning questionnaires for pre-assessment and post-assessment. The results from the questionnaires were contrasted for data analysis.

Research Participants

The participants of this research were all first-year accounting undergraduate students of That Phanom College, Nakhon Phanom University which consisted of twenty people. This group of students registered in English for communication course in the first semester of academic year of 2021. All of them were Thai people that learned English as a foreign language. These participants were selected by purposive sampling.

Research Instruments

There are three instruments for this study. They are blended learning model, twelve lesson plans of English for communication course, and self- regulated learning questionnaire.

Firstly, blended learning model was developed and used for enhancing the students' self- regulated learning. It was developed based on three models. First model is ADDIE Model by Branch (2009), this is the process of developing teaching model which comprises of five components: 1) analysis, 2) design, 3) development, 4) implementation, and 5) evaluation. Next model is ASSURE Model by Heinich, Molenda, and Rusell & Smaldino (2002), this is widely applied for integrating technologies in teaching model which contains six components: 1) learner analysis, 2) standard and objective statement, 3) selections of strategies, medias, technologies, and materials, 4) utilization of technologies, materials, and medias, 5) learner's participation requirement, and 6) evaluation and revision. Last model is MRK Model by Morrison, Ross, Kalman (2013), this is a framework for designing and developing teaching model based on blended learning. An important thing of the model is emphasizing the varieties of activities and the activation for learners' self- regulated learning which comprises of eight components: 1) specification of problem and related goals, 2) investigation of learners' characteristics for specifying learning ways, 3) identification of the contents of the course, 4) establishment of learning purposes, 5) sequence of the contents, 6) design of teaching strategies, 7) planning of teaching delivery, and 8) development of the instruments for learning evaluation.

From the principles of the above models, they were adapted by the researcher for developing blended learning model. ADDIE Model was used as a guide to create the teaching model, ASSURE Model was surveyed to integrate technologies in teaching process, and MRK Model was reviewed as the ways to create activities for simulating self- regulated learning. The model, which was developed by the researcher, mainly contained three phases: 1) considering the components for designing and developing teaching model, 2) implementing teaching model, and 3) evaluating teaching model for revise. This model was conducted in two modes. They were face to face and online learning which were implemented according to the principle of blended learning. The ratio of face to face was 35%, and the ratio of online learning was 65% approximately. In part of learning by face to face, it was conducted through descriptions, discussions, and activities. As learning by online, it was mainly conducted via Google Classroom, Google Meet, and Line. This teaching model was designed and developed under the control and suggestion by the researcher's advisor. Hence, the researcher had

operated and revised the model according to the advisor's suggestion for more consistency and appropriateness of the model's components.

Secondly, the twelve lesson plans of English for communication course using learning activities based on blended learning were implemented by the researcher. They were created and implemented as a guideline for operating learning and teaching management in parts of topic, learning purpose, time period, teaching methods, teaching procedures, contents, learning activities, student's role, teacher's role, learning and teaching materials, and evaluation. Face to face and online learning were combined for conducting this learning and teaching activities. Teaching management was mainly divided into three parts: 1) pre-teaching, 2) while-teaching, and 3) post-teaching. These lesson plans were determined regarding suitability by three experts who had experiences for teaching English language for more than five years. Each lesson plan was considered about suitability of essences, learning purposes, contents, learning activities, learning materials, and learning evaluation. The suitability mean score of overall lesson plan was 4.69 and the standard deviation (SD) was 0.54.

Lastly, the self-regulated learning questionnaires, which was adapted from Barnard, Lan, To, Paton & Lai (2009), was used for assessing the students' self-regulated learning before and after implementing blended learning model. It can be divided into two parts. Firstly, it is respondent's background information. This is filling information in the blank. Next, this part consists of the questions regarding the effects of blended learning model towards the students' self-regulated learning. The questionnaire was designed in form of five Likert scale: 1 = very low, 2 = low, 3 = fair, 4 = high, and 5 = very high. The Index of Item Objective Congruence (IOC) was used to evaluate the consistency and the appropriateness of this questionnaire. This was evaluated by the same experts of lesson plan of English for communication course. The overall IOC score of the questionnaire was 0.97. Moreover, reliability of the questionnaire was verified by Cronbach's Alpha Coefficient. Its reliability score was 0.77. Ethical approval for this research was obtained from University of Phayao Human Ethics Committee.

Data Analysis

The study was conducted by using percentage (%), mean (\bar{X}), and standard deviation (SD) for data analysis. These statistics were processed through SPSS program.

Above data was analyzed in which the students were asked to respond the levels from 1–5 in the questionnaire about the effects of blended learning model towards self-regulated

learning. The results of each scale were computed in mean and standard deviation scores through SPSS program.

Result

The research question investigated the effects of using blended learning model towards the students' self-regulated learning. For answering this research question, the finding from the self-regulated learning questionnaires for pre-assessment and post-assessment was analyzed, presented, and compared.

Self-regulated learning of the students was assessed with the Likert Scale. The calculation of rating each question in the questionnaire for self-regulated learning assessment has the following rate.

5 = Very High

4 = High

3 = Fair

2 = Low

1 = Very Low

As the criteria for assessing the level of self-regulated learning, this was adapted from the criteria for measuring the autonomous learning level of Saeheng (2017) which can be interpreted by using the levels as following:

Average 1.00 – 1.80 means Very Low

Average 1.81 – 2.60 means Low

Average 2.61 – 3.40 means Fair

Average 3.41 – 4.20 means High

Average 4.21 – 5.00 means Very High

Table 1 The demographic data of the participants

Details (N = 20)		Numbers	Percentages (%)
Genders	Male	1	5
	Female	19	95
Ages	18–20 years old	18	90
	Upper than 20 years old	2	10

According to the table 1, it shows the demographic data of the participants. In parts of genders, there were one male (5%) and nineteen female (95%). For the ages, there were eighteen people who aged during 18–20 years old (90%), and there were two people that were upper than 20 years old (10%).

Table 2 Self-regulated learning assessment

No.	Contents		\bar{X}	SD	Level
1	Goal Setting				
1.1	I set standards for my assignments in course.	Pre - survey	3.25	0.444	Fair
		Post - survey	4.50	0.512	Very High
1.2	I set short-term goals (daily or weekly) as well as long-term goals (monthly or for the semester).	Pre - survey	3.20	0.410	Fair
		Post - survey	4.20	0.410	High
1.3	I keep a high standard for my learning in my course.	Pre - survey	3.30	0.470	Fair
		Post - survey	4.65	0.489	Very High
1.4	I set goals to help me manage study time for my face to face and online learning.	Pre - survey	2.95	0.223	Fair
		Post - survey	4.30	0.470	Very High
1.5	I plan to specify the ways for achieving learning goals in course.	Pre - survey	3.15	0.489	Fair
		Post - survey	4.50	0.512	Very High
2	Environment Structuring				
2.1	I choose the location where I study to avoid too much distraction.	Pre - survey	3.60	0.598	High
		Post - survey	4.60	0.502	Very High
2.2	I find a comfortable place to study.	Pre - survey	3.60	0.502	High
		Post - survey	4.70	0.470	Very High
2.3	I know where I can study most efficiently for online learning.	Pre - survey	3.40	0.502	Fair
		Post - survey	4.35	0.489	Very High
2.4	I choose a time with few distractions for studying for my online learning.	Pre - survey	3.45	0.510	High
		Post - survey	4.35	0.489	Very High
3	Task Strategies				
3.1	I try to take more thorough notes for my online courses because notes are even more important for learning online than in a regular classroom.	Pre - survey	2.40	0.502	Low
		Post - survey	3.95	0.604	High

No.	Contents		\bar{X}	SD	Level
3.2	I read aloud instructional materials that are posted online to fight against distractions.	Pre - survey	2.25	0.850	Low
		Post - survey	3.40	0.994	Fair
3.3	I prepare my questions before joining discussion in class.	Pre - survey	2.45	0.510	Low
		Post - survey	3.85	0.670	High
3.4	I work extra problems in my online courses in addition to the assigned ones to master the course content.	Pre - survey	2.90	0.552	Fair
		Post - survey	4.55	0.510	Very High
4	Time Management				
4.1	I allocate extra studying time for my online learning because I know it is time demanding.	Pre - survey	3.05	0.394	Fair
		Post - survey	4.45	0.510	Very High
4.2	I try to schedule the same time every day or every week for my learning, and I observe the schedule.	Pre – survey	2.90	0.307	Fair
		Post - survey	4.25	0.444	Very High
4.3	Although I do not have to attend daily classes, I still try to distribute my studying time evenly across days.	Pre - survey	3.25	0.444	Fair
		Post - survey	4.70	0.470	Very High
5	Help Seeking				
5.1	I find someone who is knowledgeable in course content so that I can consult with him or her when I need help.	Pre – survey	2.75	0.550	Fair
		Post - survey	4.60	0.502	Very High
5.2	I share my problems with my classmates online, so we know what we are struggling with and how to solve our problems.	Pre - survey	2.65	0.745	Fair
		Post - survey	4.00	0.648	High
5.3	If needed, I try to meet my classmates face-to-face.	Pre - survey	2.75	0.716	Fair
		Post - survey	4.25	0.444	Very High
5.4	I am persistent in getting help from the instructor through online channel.	Pre - survey	2.65	0.587	Fair
		Post - survey	4.15	0.489	High

No.	Contents		\bar{X}	SD	Level
6	Self – Evaluation				
6.1	I summarize my learning to examine my understanding of what I have learnt.	Pre - survey	2.70	0.470	Fair
		Post - survey	3.65	0.587	High
6.2	I ask myself a lot of questions about the course material when studying for an online course.	Pre - survey	2.60	0.502	Fair
		Post - survey	3.85	0.745	High
6.3	I communicate with my classmates to find out how I am doing in my learning through face to face and online learning.	Pre – survey	2.90	0.307	Fair
		Post - survey	4.10	0.552	High
6.4	I communicate with my classmates to find out what I am learning that is different from what they are learning.	Pre - survey	2.90	0.447	Fair
		Post - survey	3.90	0.640	High

According to the table 2, it describes the students' self-regulated learning which is presented as following information.

Firstly, it is goal setting. The students set standard for their assignments in their course in the pre - assessment was at fair level ($\bar{X} = 3.25$, $SD = 0.444$), and the post-assessment was at very high level ($\bar{X} = 4.50$, $SD = 0.512$). The students set short-term goals (daily or weekly) as well as long-term goals (monthly or the semester) in the pre-assessment was at fair level ($\bar{X} = 3.20$, $SD = 0.410$), and the post-assessment was at high level ($\bar{X} = 4.20$, $SD = 0.410$). The students kept a high standard for learning in course in the pre-assessment was at fair level ($\bar{X} = 3.30$, $SD = 0.470$), and the post-assessment was at very high level ($\bar{X} = 4.65$, $SD = 0.489$). The students set goals to help them manage study time for their face to face and online learning in the pre-assessment was at fair level ($\bar{X} = 2.95$, $SD = 0.223$), and the post-assessment was at very high level ($\bar{X} = 4.30$, $SD = 0.470$). The students planned to specify the ways for achieving learning goals in course in the pre-assessment was at fair level ($\bar{X} = 3.15$, $SD = 0.489$), and the post-assessment was at very high level ($\bar{X} = 4.50$, $SD = 0.512$).

Secondly, it is environment structuring. The students chose the location where they study to avoid too much distraction in the pre-assessment was at high level ($\bar{X} = 3.60$, $SD = 0.598$), and the post-assessment was at very high level ($\bar{X} = 4.60$, $SD = 0.502$). The students found a comfortable place to study in the pre-assessment was at high level ($\bar{X} = 3.60$,

SD=0.502), and the post-assessment was at very high level ($\bar{X}=4.70$, SD=0.470). The students knew where they can study most efficiently for online learning in the pre-assessment was at fair level ($\bar{X}=3.40$, SD=0.502), and the post-assessment was at very high level ($\bar{X}=4.35$, SD=0.489). The students chose a time with few distractions for studying for their online learning in the pre-assessment was at high level ($\bar{X}=3.45$, SD=0.510), and the post-assessment was at very high level ($\bar{X}=4.35$, SD=0.489).

Thirdly, it is task strategies. The students tried to take more thorough notes for their online courses because notes were even more important for learning online than in a regular classroom in the pre-assessment was at low level ($\bar{X}=2.40$, SD=0.502), and the post-assessment was at high level ($\bar{X}=3.95$, SD=0.604). The students read aloud instructional materials that were posted online to fight against distractions in the pre-assessment was at low level ($\bar{X}=2.25$, SD=0.850), and the post-assessment was at fair level ($\bar{X}=3.40$, SD=0.994). The students prepared their questions before joining discussion in class in the pre-assessment was at low level ($\bar{X}=2.45$, SD=0.510), and the post-assessment was at high level ($\bar{X}=3.85$, SD=0.670). The student worked extra problems in their online courses in addition to the assigned ones to master the course content in the pre-assessment was at fair level ($\bar{X}=2.90$, SD=0.552), and the post-assessment was at very high level ($\bar{X}=4.55$, SD=0.510).

Next, it is time management. The students allocated extra studying time for their online learning because they knew it is time demanding in the pre-assessment was at fair level ($\bar{X}=3.05$, SD=0.394), and the post-assessment was at very much level ($\bar{X}=4.45$, SD=0.510). The students tried to schedule the same time every day or every week for their learning, and they observed the schedule in the pre-assessment was at fair level ($\bar{X}=2.90$, SD=0.307), and the post assessment was at very high level ($\bar{X}=4.25$, SD=0.444). Although the students did not have to attend daily classes, they still tried to distribute their studying time evenly across days in the pre-assessment was at fair level ($\bar{X}=3.25$, SD=0.444), and the post-assessment was at very high level ($\bar{X}=4.70$, SD=0.470).

Then, it is help seeking. The students found someone who is knowledgeable in course content so that they can consult with him or her when they need help in the pre-assessment was at fair level ($\bar{X}=2.75$, SD=0.550), and the post-assessment was at very high level ($\bar{X}=4.60$, SD=0.502). The students shared their problems with their classmates online, so they knew what they were struggling with and how to solve their problems in the pre-assessment was at fair level ($\bar{X}=2.65$, SD=0.745), and the post-assessment was at high level ($\bar{X}=4.00$, SD=0.648). If

needed, they tried to meet their classmate face-to-face in the pre-assessment was at fair level ($\bar{X} = 2.75$, $SD = 0.716$), and the post-assessment was at very high level ($\bar{X} = 4.25$, $SD = 0.444$). They were persistent in getting help from the instructor through online channel in the pre-assessment was at fair level ($\bar{X} = 2.65$, $SD = 0.587$), and the post-assessment was at high level ($\bar{X} = 4.15$, $SD = 0.489$).

Lastly, it is self-evaluation. The students summarized their learning to examine their understanding of what they have learnt in the pre-assessment was at fair level ($\bar{X} = 2.70$, $SD = 0.470$), and the post-assessment was at high level ($\bar{X} = 3.65$, $SD = 0.587$). The students asked their themselves a lot of questions about the course material when studying for an online course in the pre-assessment was at fair level ($\bar{X} = 2.60$, $SD = 0.502$), and the post-assessment was at high level ($\bar{X} = 3.85$, $SD = 0.745$). The students communicated with their classmates to find out how they were doing in their learning through face to face and online learning in the pre-assessment was at fair level ($\bar{X} = 2.90$, $SD = 0.307$), and the post-assessment was at high level ($\bar{X} = 4.10$, $SD = 0.552$). The students communicated with their classmates to find out what they were learning that was different from what they were learning in the pre-assessment was at fair level ($\bar{X} = 2.90$, $SD = 0.447$), and the post-assessment was at high level ($\bar{X} = 3.90$, $SD = 0.640$).

Table 3 Pre-assessment and post-assessment of the students' self-regulated learning towards learning through blended learning model (Overall Image)

No.	Contents (n = 20)	Mean Score (\bar{X})	Standard Deviation (SD)	Level
1	Goal Setting			
	Before	3.17	0.135	Fair
	After	4.43	0.178	Very High
2	Environment Structuring			
	Before	3.51	0.103	High
	After	4.50	0.177	Very High
3	Task Strategies			
	Before	2.50	0.279	Less
	After	3.93	0.473	High
4	Time Management			
	Before	3.06	0.175	Fair

No.	Contents (n = 20)	Mean Score (\bar{X})	Standard Deviation (SD)	Level
	After	4.46	0.225	Very High
5	Help Seeking			
	Before	2.70	0.057	Fair
	After	4.25	0.254	Very High
6	Self – Evaluation			
	Before	2.77	0.150	Fair
	After	3.87	0.184	High
Total				
Before		2.95	0.366	Fair
After		4.24	0.277	Very High

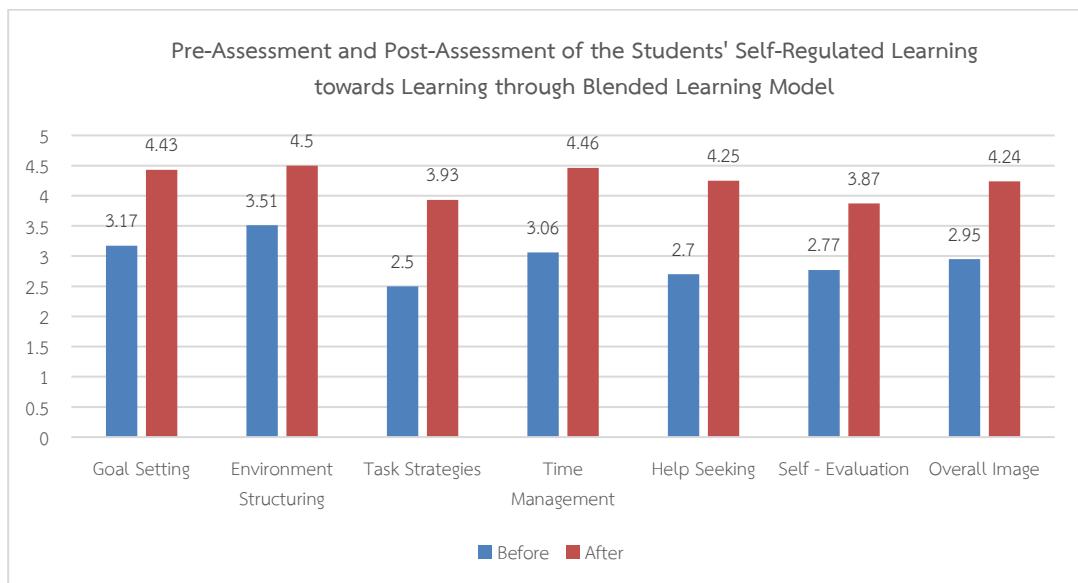


Figure 2 Mean Scores of Pre-Assessment and Post-Assessment of the Students' Self-Regulated Learning towards Learning through Blended Learning Model

According to the information from table 3 and figure 2, which were the information of pre-assessment and post-assessment of the students' self-regulated learning towards learning

through blended learning model, they showed that the level of the students' self-regulated learning after learning through blended learning model (4.24) was higher than the level of the students' self-regulated learning before learning through the model (2.95). When each list of their self-regulated learning was considered, it found that the level of goal setting after learning through blended learning model (4.43) was higher than the level before learning through the model (3.17), the level of environment structuring after learning through blended learning model (4.50) was higher than the level before learning through the model (3.51), the level of task strategies after learning through blended learning model (3.93) was higher than the level before learning through the model (2.50), the level of time management after learning through blended learning model (4.46) was higher than the level before learning through the model (3.06), the level of help seeking after learning through blended learning model (4.25) was higher than the level before learning through the model (2.70), and the level of self-evaluation after learning through blended learning model (3.87) was higher than the level before learning through the model (2.77).

From the above information, it can be concluded that the students had more self-regulated learning in every part after learning through blended learning model. Moreover, each part of their self-regulated learning after learning through the model can be ranked. The students had self-regulated learning in parts of environment structuring, time management, goal setting, help seeking, task strategies, and self-evaluation respectively.

Discussion

According to the purpose of this research, the effects of using blended learning model towards Thai university students' self-regulated learning was investigated. For the above investigation, the data analysis results of this research indicate that the model had a significant role for promoting the students' self-regulated learning. From the use of blended learning model, they learnt to set learning goal, structure learning environment, set learning strategies, manage learning time, seek help for more learning, and evaluate learning outcome. These learning aspects were consistent with the concepts of Pintrich & Zusho (2002) and Zimmerman (2000), they explained that the circle of self-regulated learning contains three phases: forethought and planning, performance monitoring, and reflection on performance. In part of forethought and planning, the students set learning goals and specify plans and strategies as the ways for accomplishing learning tasks. For performance monitoring, the students employ

plans and strategies to operate the tasks. As performance monitoring, they also monitor the effectiveness of plans and strategies which are employed for operating learning tasks. Moreover, the students evaluate learning outcomes after plans and strategies have been used for completing learning tasks and achieving learning goals. Then, they revise plans and strategies for more effectiveness.

This result was supported by the study of Uz and Uzun (2018), it indicated that blended learning environment promoted the students to control their selves for learning. They needed to have the strategies for achieving their goals, interact with the other people for receiving knowledge, and evaluate their tasks for improvement. As Stein and Graham (2014), they also specified that blended learning environment encouraged the students to control their selves for accomplishing learning goal. The change from traditional learning to blended learning seemed to be primary factor leading to these learning aspects. Learning via blended learning way in which online learning is combined with face to face, enabled the students to learn more actively than traditional method. From learning procedure through blended learning environment, these students obtained some information and basic knowledge by online learning, and expanded their learning in classroom by face to face learning. It means that the students did not only learn from the teacher's description, but they also needed to learn by themselves through various learning activities and resources. Before attending the classroom, they were required to search some information and make understanding regarding the contents through self-study from provided resources and the other related things. Then, in the classroom, these students expanded knowledge from teacher's description, group discussion, and the other associated learning activities. This consequence was congruent with Stein and Graham (2014), they pointed out that the students became more active learners when attending in blended learning environment. These students were engaged and motivated for learning in various learning channels. The students were not required to only learn in the regular classroom, they were also able to learn anything at anywhere and anytime.

From above learning procedures, the students were required to accept more responsibility and self-discipline for their learning both inside and outside the classroom. The students were encouraged to set goal what they would like to know and understand, structure suitable environment for stimulating more learning, employ strategies for selecting effective methods for achieving tasks, manage time for finishing tasks within specified duration, call for help from teacher or friends or knowledgeable people to make more understanding about

associated information or knowledge, and evaluate or monitor the implemented strategies and received learning outcome for revision. This result was supported by the study of Uz and Uzun (2018), it indicated that blended learning environment promoted the students to control their selves for learning. They needed to have the strategies for achieving their goals, interact with the other people for receiving knowledge, and evaluate their tasks for improvement. As Stein and Graham (2014), they also specified that blended learning environment encouraged the students to control their selves for accomplishing learning goal.

In the part of blended learning model, which were developed by the researcher, it mainly had two important components: face to face and online learning. These components were developed to support the students' self-regulated learning. For online learning, the students were required to search information associated to the assigned topics or contents through various channels and resources on websites. Then, they made understanding about them before attending the classroom. Besides, the students were also required to complete tasks and exercises, and sent them online through google classroom which they received feedbacks after these tasks and exercises were checked and evaluated by the teacher. In this learning process, the students could learn anywhere and anytime. At the same time, the teacher gave suggestions for the students by means of google meet (Synchronous Type) and line (Asynchronous Type). From self-study via online platform, self-regulated skill needed to be used. The students were necessary to set learning goals what they would like to know and understand, planed about the means to accomplish those learning goals, managed time to operate according to the plans on time, arranged environment to support more learning, and evaluated what they perceived from online channel. As face to face learning, the students were initially required to discuss with peers and teacher in the classroom regarding the information received from online platform. After the discussion, the teacher described the related contents, asked and answer the questions about what were lectured. The students were also required to do exercises, practiced about the contents, and presented what they understood. In this learning process, the teacher could give them feedbacks and suggestions immediately. From this learning means, the students could be trained and developed in part of self-regulated learning skill. Outstandingly, the students were supported to interact with the other people for seeking helps. They could obtain some information or knowledge by asking suggestions from their peers or the knowledgeable people. Moreover, they needed to evaluate their practices and tasks before presentations.

Conclusion

Currently, learning is not only limited in a regular classroom, but it can be occurred at anywhere and anytime through a varieties of learning channels. As the learners, they need to have self-controlled learning skill for more learning effectiveness. This research aimed to investigate the effects of teaching model based on blended learning towards EFL students' self-regulated learning. The results of the study can be concluded that the students' self-regulated learning level was higher after learning via blended learning model. For the elements of self-regulated learning, all of them were also higher after the teaching model was implemented. In regard to the teaching implication, this study can be beneficial to students for enhancing their self-regulated learning. Besides, the findings can be useful for English learning and teaching. However, it should be noted that the limitation of this study is sample size which is quite small. Also, there is only one group of students from one field of study participating the research. This may limit to investigate and compare with the other groups of students. Further study should increase sample size and other fields of study for comparison from the different group.

Recommendations

Policy Recommendations

1. Educational institutes should support teachers to arrange learning and teaching by utilizing blended learning method in which face to face and online learning are combined for learning, and also train them how to design courses. Besides, necessary technologies for learning and teaching through the learning method need to be adequately provided.
2. Teachers should design learning processes, contents, and activities by considering about the levels of students and the contexts of courses. Also, the ratios between face to face and online learning need to be appropriately used for learning in each context.
3. Teachers should inform the students how to learn through blended learning method for making understanding before the class begins. In part of learning and teaching arrangement, teachers need to suggest or guide these students to learn anything actively and independently.

Recommendations for future research

1. Various groups of participants should be covered in order to be compared and contrasted in the result.
2. Interview should be implemented so that the participants are able to specify more information associating with the result.

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