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ผลของการใช้โมเดลการเรียนรู้แบบหมุนเวียนฐานในรูปแบบการเรียนแบบผสมผสานต่อความสามารถใน ด้านการพูดภาษาอังกฤษของนักเรียนไทยระดับประถมศึกษาที่เรียนภาษาอังกฤษเป็นภาษาต่างประเทศ

Effects of Using Station Rotation Model in Blended Learning on English Speaking Ability of Thai EFL Primary School Students

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บทคัดย่อ

การวิจัยครั้งนี้ มีวัตถุประสงค์เพื่อศึกษาผลของการสอนภาษาอังกฤษโดยใช้โมเดลการเรียนรู้แบบหมุนเวียนฐานใน แนวคิดการเรียนรู้แบบผสมผสานที่มีต่อความสามารถในด้านการพูดภาษาอังกฤษและทัศนคติที่มีต่อการสอนภาษาอังกฤษของ นักเรียนไทยระดับประถมศึกษา กลุ่มตัวอย่างที่ใช้ในการศึกษาครั้งนี้ได้แก่ นักเรียนชั้นประถมศึกษาปีที่ 5 จำนวน 41 คน ที่ ศึกษาในภาคเรียนที่ 2 ปีการศึกษา 2559 ซึ่งเป็นโรงเรียนในจังหวัดศรีสะเกษ กลุ่มตัวอย่างที่ใช้ในการศึกษาในครั้งนี้มีระดับ ความสามารถที่แตกต่างกัน การสอนภาษาอังกฤษโดยใช้โดยใช้รูปแบบการเรียนรู้แบบหมุนเวียนฐานใช้เวลาทั้งสิ้น 12 สัปดาห์ โมเดลการเรียนรู้ประกอบไปด้วย 3 ฐานการเรียนรู้ คือ ฐานการสอนปกติโดยครูผู้สอน ฐานการเรียนออนไลน์ และฐาน การเรียนรู้แบบร่วมมือ เครื่องมือที่ใช้ในการวิจัยคือ แบบทดสอบก่อนเรียนและหลังเรียน แบบสอบถามทัศนคติที่มีต่อการเรียน ภาษาอังกฤษที่ใช้โมเดลเรียนรู้แบบหมุนเวียนฐาน และบันทึกของครูผู้สอนเพื่อสนับสนุนผลวิเคราะห์จากแบบสอบถามทัศนคติ ผลการวิจัยที่สำคัญพบว่าความสามารถในการพูดภาษาอังกฤษของกลุ่มตัวอย่างดีขึ้นอย่างมีนัยสำคัญและแรงจูงใจในการเรียน ภาษาอังกฤษของกลุ่มตัวอย่างสูงกว่าก่อนที่จะได้รับการเรียนการสอนภาษาอังกฤษโดยใช้โมเดลการเรียนรู้แบบหมุนเวียนฐาน ในแนวคิดการเรียนรู้แบบผสมผสาน นอกจากนี้กลุ่มตัวอย่างมีทัศนคติอยู่ในระดับที่ดีต่อการเรียนภาษาอังกฤษโดยใช้ การเรียนรู้แบบหมุนเวียนฐาน ผลการวิจัยแสดงให้เห็นว่าโมเดลการเรียนรู้แบบหมุนเวียน

คำสำคัญ : การเรียนแบบผสมผสาน, การเรียนรู้แบบหมุนเวียนฐาน, ความสามารถในการพูด

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Abstract

      This study aimed to investigate the effects of an English instruction using station rotation model in Blended Learning on improving English speaking ability of primary school students and their attitudes towards the model. The participants were 41 fifth-grade students who were studying in the second semester of the academic year 2016 in a primary school in Sri Saket province, Thailand. They had different English ability levels. The instruments used in this study were pretest, posttest, and a questionnaire. The data were analyzed by using mean, standard deviation and t-test. The research findings were summarized as follows: 1) Participants' English-speaking ability improved significantly. 2) Participants had positive attitudes towards the station rotation model after learning. The findings also suggest that the station rotation model can be implemented to enhance English speaking skills of EFL primary school students in Thailand. In order to implement this model to primary school students, the learner training should be clearly explained as suggested in this research. Furthermore, the effects of station rotation model in Blended Learning on other language skills should be explored in future research.

Keywords: blended learning, station rotation, English speaking ability

Introduction

      Thailand is now a family member of the Association of Southeast Asian Nations (ASEAN) which English language is used as a medium of communication. English speaking ability is considered to be one of the most essential means in communication. Being able to speak is an evidence of learning a language. Thus, finding effective ways to increase students' English-speaking ability in Thailand where students learn English as a foreign language has always been a popular topic for instructors and involved organization.

      Speaking skills have been less taught in school due to individual aspect of the students and the teacher's point of view. In addition, students in Thailand have been taught a lot of English grammar rules and vocabulary items by memorizing without understanding actual meaning, which affects students' overall English ability (Jenpattarakul, 2012). Furthermore, a large class size is believed in affecting language learners' learning process. Researchers and educators have argued that large classes can have negative effects on student achievement. In implication, there appear to be more students to attend a larger class. On the contrary, in a smaller class, students are given more instructional time and are able to focus more on the curriculum being taught (Leahy, 2006). In order to maximize students' learning in a large class size, blended learning can be a potential option for teaching and learning.

      The definitions of blended learning are defined by different scholars. Blended learning is regarded as the combination of the traditional face-to-face instruction and the e-learning

(Bonk & Graham, 2006). It is required students to learn at least through internet and face-to-face session (Staker & Horn 2012). The usefulness of blended learning is suitable for students in the twenty-first century since traditional way of teaching and learning is preferable and also the innovation of resources for teaching and learning supports students' learning. Thus, it is important to teach students how to become productive learners and be able to use up-to-date equipment in learning.

However, selecting a suitable model of blended learning should be taken into account. Studying independently alone as guided in a blended learning seems to be difficult for young learners in term of using technology in learning but with the teacher being a facilitator in a given course might be more useful for them. Thus, a station rotation model involves a split between the two or more stations; face-to-face instruction and online learning and students rotate through all stations (Horn & Staker, 2011). The other stations can be collaborative activities. Cooperative learning defined as the use of small groups designed to encourage students to work together to maximize their own and each other's learning (Johnson & Johnson, 1998). The use of the tasks as the main pedagogical input in face-to-face or online setting connects the students with authentic situations and emphasizing communication in an appropriate way (Ellis, 2003; Richards, 2006). The station rotation model can make class size smaller which will provide students' opportunities to perform their speaking ability. Hence, the model can be one of the blended models in facilitating students in primary level since the class requires a fixed schedule which is manageable and suitable for learning. It can be done within a classroom setting.

Furthermore, most of the studies focused on particular English skills such as reading and writing, but there are few studies on improving speaking skills. To study about the factors that support students' learning would help implement blended learning classes into English learning classroom in Thai contexts especially with young learners. In addition, to study the particular approach which would be suitable for young learners, will definitely be beneficial to explore the learning experience of the students.

This study explored the effects of a station rotation model in blended learning of the fifth-grade students' on improving their speaking skills. Furthermore, this study investigated the students' attitudes towards the station rotation model in blended learning environment on improving their speaking ability by using questionnaires and informal interviews. In addition, students' attitudes with this type of method were explored. The unit structures of this blended learning as well as time length of the course were clarified. Fifth grade students in a

primary school were given a questionnaire acquiring their attitudes towards blended learning. The findings revealed the usefulness of the station rotation model in blended learning course and investigate how the method assists their learning.

Objectives

1. To explore the effects of blended learning using the station rotation model on improving English speaking ability after learning.

2. To investigate the students' attitudes towards blended learning using the station rotation model on improving English speaking ability after learning.

Picture 1

Conceptual Framework
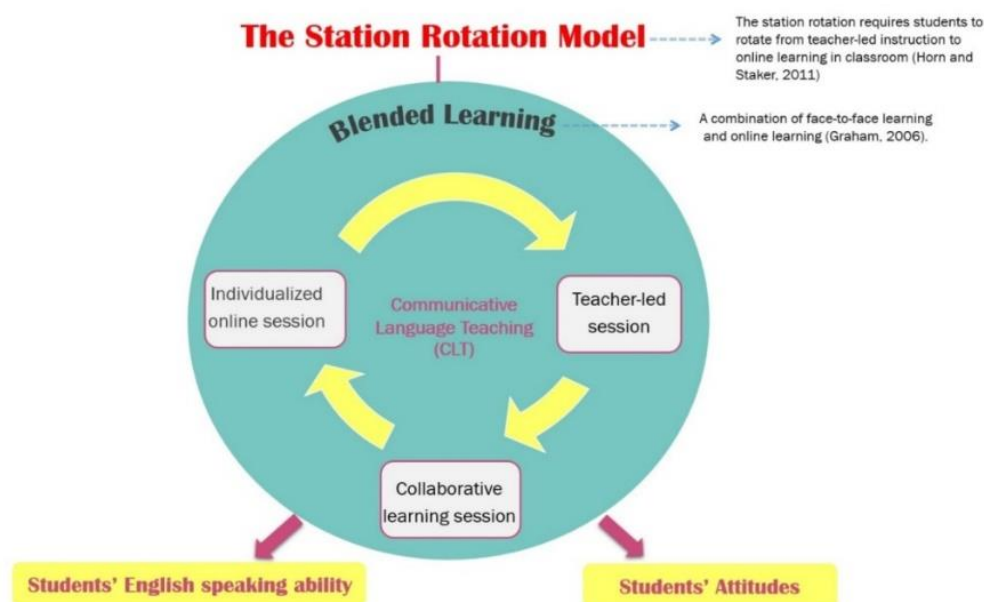
Procedures

This research aimed at exploring the effects of blended English Learning using the station rotation model on improving students' speaking ability. In addition, to investigate the students' attitudes toward the station rotation model in blended English learning environment after learning. This study was a one-group pre-test and post-test design.

The pretest and posttest scores were collected through quantitative method after the treatment of learning in a blended environment.

For the qualitative data, it was received from conducting interviews after the treatment. The data investigated the students' attitudes towards blended English learning and the model.

Population and Participants

The population in the study was the fifth-grade students in Thai EFL primary school in Thailand. The number of participants in the study is 41 fifth grade students in Sisaket province. The students were purposively selected for this study and the course is an additional course in the regular classroom.

Instruments

The research instruments used in the study are as follow:

1. English Pretest and Posttest
2. Questionnaires
3. Teacher Log

Data Collection

The data collection took approximately 12 weeks. The needs analysis and the pretest were conducted before the treatment. The formative assessment and informal interviews were conducted during the instructional process in the fifth week. The posttest was used to investigate the students' learning results for summative assessment. The fifth-grade students were given questionnaires examining their attitudes towards blended learning at the end of the course.

Data Analysis

The results from data collection were analyzed by using means and standard deviation from pre-test and post-test to reveal the effects of blended learning using the station rotation model. The attitudes of the students toward blended English learning were analyzed by using content analysis to answer the second research questions.

Findings

The purpose of the study was to analyze the use of a station rotation model in Blended learning on improving English speaking ability. Data from this study were obtained through English pretest and posttest focusing on speaking skills answered by the participants. Learning log was observed and recorded by the researcher. Furthermore, this study investigated the students' attitudes towards the station rotation model in blended learning environment on improving their speaking ability.

To answer this objective, the mean scores of the learners' English-speaking test on pretest and posttest were compared.

Table 1

Pretest Analysis

N		M	SD	Min	Max
Pretest	41	6.61	3.71	0	14

Table 2 below illustrates the posttest analysis, concerning the minimum pretest scores, the highest score was 24 which is significantly higher. The results were shown that the students scores' were improved after learning.

Table 2

Posttest Analysis

N		M	SD	Min	Max
Posttest	41	10.07	5.74	1	24

Table 3

A Comparison of the Mean Scores, Standard Deviation, t-test, and statistical significance on Pretest and Posttest.

N		M	SD	Std. Error Mean	t	df	Sig. (1-tailed)
Pretest Posttest	41	3.46	7.12	1.11	3.12	40	0.0017

As illustrated in table 3, it was found that the English-speaking ability of the fifth grade students was significantly higher after posttest at the .05 level. The participants had significantly higher mean scores on the posttest (M = 10.07, SD = 5.74) than the pretest (M = 6.61, SD =3.71).

To answer to the objective 2, the data from the questionnaire in the Table 4 below were analyzed using content analysis examining the students' attitudes towards the use of station rotation model in learning English.

Table 4

The questionnaire from investigating the students' attitude towards the use of station rotation model in learning English

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	M
Teacher-led session						
1. A teacher-led session provides opportunities for discussion amongst students in class.	0	4	6	15	21	4.07
2. I am satisfied with the way I interact with other students in a teacher-led session.	0	2	6	19	14	4.10
3. I am satisfied with how I am able to apply what I have learned from a computer-based learning session in a teacher-led session.	0	2	5	19	15	4.15
4. A teacher-led session helps me understand the lesson more before I learn in a computer-based session.	0	4	6	14	17	4.07
5. A teacher-led session provides enough guideline for a collaborative learning session.	0	1	12	14	14	4.00
Computer-based session						
6. A computer-based English learning session keeps me always alert and focused.	0	0	7	15	19	4.29
7. A computer-based English learning session provides flexibility to me in terms of my study needs (offering access resources when I need them – enabling me to study when I choose to)	1	3	6	13	18	4.07
8. A computer-based English learning session helps instructors to be accessible to students outside class.	1	2	4	17	17	4.15

Table 4 (cont.)

The questionnaire from investigating the students' attitude towards the use of station rotation model in learning English

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	*M*
Teacher-led session						
9. A computer-based English learning session increases interaction levels between individual students and the course instructor during class.	0	1	8	16	16	4.15
10. A computer-based English learning session enables instructors to provide a wide variety of learning resources for students.	0	4	4	19	14	4.05
Station Rotation Model (Blended learning)						
11. Station Rotation Model encourages me to learn English language.	0	2	8	15	16	4.10
Teacher-led session						
12. The use of blended English learning technology in this course encourages me to learn independently.	0	2	8	18	13	4.02
13. Station Rotation Model improved my interaction with the teacher.	0	2	6	17	16	4.15
14. Station Rotation Model improved my interaction with my classmates.	0	2	8	19	12	4.00
15. Station Rotation Model is less stressful than traditional teacher-led delivery.	0	2	8	19	12	4.00
16. I preferred the Station Rotation Model to traditional learning method.	0	2	11	15	13	3.95
17. Station Rotation Mode was a waste of time.	11	12	12	5	2	2.46
18. The model increased my interest in English.	0	0	9	24	8	3.98
19. I am satisfied enough with this English course to recommend it to others.	0	1	6	17	17	4.22

The findings found in Table 4, the students were satisfied with how they can apply what they have learned from the computer-based learning session in teacher-led session examining from question 3. It has shown that the station rotation model can increase their interest in learning English language and help them understand the lessons. The questionnaire investigating the students' attitudes toward computer-based session, the students strongly agreed that a computer-based English learning session keeps them alert and focused. They could communicate with the teacher and ask questions online outside classroom. The students were encouraged to learn outside classroom. This can be implied that a computer-based English learning session increases interaction levels between individual students and the course instructor during class and outside class. In analyzing the students' attitudes towards the use of station rotation model in Blended learning, the findings found that they were satisfied with the English course and would recommend it to others. Moreover, most of them are willing to take another course using the blended learning delivery mode. They disagreed that the model is a waste of time.

The teaching log was used for additional information for findings by the researcher, who observed and recorded qualitative data over the three points as follows:

What went well:

At the beginning of the course, the students were motivated in learning English with computers and the teacher. Most of them paid attention to teacher-led session and online session. In addition, they were happy to work as a team during collaborative session. They helped each other working on some new vocabulary and new sentences that they had learned from the teacher-led instruction. They always followed the teacher's instruction and repeated new vocabulary words after the teacher. Even though the students have never experienced the station rotation model, they seemed to enjoy every station and excited about what they will learn from each station.

At the middle of the course, the student were used to the station rotation model. Some students enjoyed the computer-based session but some of them preferred the collaborative session. The students who preferred computer-based session tended to have computer skills and they usually can solve some small technical problems, for example; logging in the website. They were still motivated to learn English using the station rotation model. Some of them used the learning website to communicate among classmates and the teacher. Some students with high proficiency tended to finish each task or session quickly and requested the teacher to do the next session right after they finished the tasks.

At the end of the course, the students were comfortable with the station rotation model. Some of them asked the teacher to assign more tasks for them to practice at home. The students were still motivated to learn towards the end of the course. They increased the relationship level between the teacher and classmates, so they were more comfortable to ask the questions when they did not understand.

Difficulties:

At the beginning of the course, the students were unfamiliar with the method provided by the teacher since they have never experienced it before. Furthermore, the students had limited reading ability, so they had difficulties doing some tasks that had vocabulary words involved. They were unable to match the pictures with some correct words because they had problems reading and pronouncing those words. Thus, the teacher had to help read those words for them in order for them to match the correct answers. Although the design of the lessons focused on speaking ability, reading ability could be beneficial for students to learn better. Another crucial problem found in this experiment was the technical problem with computers. This affected the lesson design in some ways, so the researcher had to change the way of obtaining the students' speaking progress or evidence through collaborative session instead of online session.

At the middle of the course, the students were focused too much on finishing the tasks as soon as they can so that they could have time to play on the computers before they moved on to the next session. Some students got distracted during the class since they wanted to use computer for playing games and watching videos from other websites apart from the lesson. However, those students tended to have higher scores.

At the end of the course, the students had some difficulties of applying the language they had studied from the lessons. It could be because the course needed extra time for each lesson and for students' practice.

Suggestions:

The researcher discovered that the station rotation can be one of the methods that is suitable for young learners as well. Teachers should double check the technical problems that may occur during each lessons such as sound, video, program etc. The students with higher proficiency may finish tasks faster than the students with lower proficiency. Thus, the design should be suitable for both groups of students if the class has mixed ability of students. However, the teacher can spend more time on students with low ability and they can learn better.

Discussion

In this study, the findings revealed that the English instruction using the station rotation model in Blended learning could enhance students' speaking ability. This section presents the discussions of the findings in light of previous studies.

The Effects of Using Station Rotation Model in Blended Learning on English Speaking Ability

The findings from this study revealed that the students' speaking ability was improved after the treatment. Even though the students' reading and writing skills are low, their listening and speaking can be used to interact with the teacher and fellow students in the study effectively. Moreover, speaking is considered to be a priority for most learners of English (Florez, 1999) and measured as the success in learning a language (Nunan, 1999; Burkart & Sheppard, 2004).

According to Chatel (2002), the findings found that through technology, students had opportunities to interact with the English language. In this study, the students agreed that the station rotation in Blended learning environment increased the interaction between the instructor and classmates. Furthermore, the interest in English learning has also been increased. Chatel (2002) concluded that blended learning instruction was more effective than traditional instruction alone. However, the findings from the questionnaire investigating the students' attitudes towards station rotation model stated that traditional instruction or face-to-face session was still important in learning English language.

This study can also be confirmed that technology such as computers, internet, and mobile devices are effective tools that have assisted teachers and students. Furthermore, technology have increased alternative ways of teaching and learning (Guzer & Caner, 2014). Since the tools provide flexibility, accessibility, and independent learning, the students from this study tried to use some of their mobile devices outside classroom to learn English online and interact with teachers instead of using computers in classroom (Gonzalez, 2009). Students can take advantage of learning through blended learning both formal and informal settings (Kukukska-Hulme, 2010). Thus, teachers can also develop new lessons that fits students' progress (Lungu, 2013).

According to the great potential of blended learning effects, there have been many studies on this approach (Bilgin, 2013). The studies investigated effects of blended English learning by using pretest and posttest. Most of the studies have focused on students in higher education since they have basic computer skills. The test results have shown that their

learning was improved after the experiment and they were given the questionnaires afterward. Their opinions towards blended learning were positive and they considered blended learning helping them improve their English learning (Bilgin, 2013).

However, this study was used with young learners. Even though, there have been a limited number of studies on young learners, the test results from posttest indicated that station rotation model in blended learning can be implemented with Thai young learners.

Students' Attitudes towards Station Rotation Model in Blended Learning

The questionnaire results in this study indicated that the students have positive attitudes towards station rotation model. They found the learning fun and enjoyable. Furthermore, it created more motivation in learning outside classroom. The students whose scores improved after the treatment were satisfied about the blended learning approach (Allen, Bourhis, Burrell, & Mabry, 2002). Thus, students' attitudes affected language learning (Bernat and Gvozdenko, 2005). This study can be confirmed that the level of satisfaction have impacts on the quality of the learning outcomes (Ginns & Ellis, 2009). However, some students who scores were not significantly improved or less than the pretest had positive attitudes towards the learning.

The attitudes towards each session revealed that the students found the advantages in each session fairly. Some of them found teacher-led instruction useful for them to learn better in computer-based session and collaborative session. They were also motivated to learn independently by finishing and reviewing some online assignments at home since the learning environment provided convenience, accessibility, autonomy learning, and positive interaction between the teacher and peers (Chandra & Fisher, 2009).

Limitations of the study

Although this study has successfully conducted and the findings were covered the research questions. The technical problems differently occurred in every lesson and with the 1-hour session provided by the school which was limited to learn a language. The classes sometimes ran out of time. Fortunately, some students could finish the online assignment at home or on their mobile devices. However, some of them who had no devices needed to finish the assigned tasks after school or during lunch break before they meet the teacher in the following week. The technical affected the lesson design and time management for some lessons.

Suggestions for future research

Since there have been some challenges recommended by many studies in term of using some online tools for the first time, providing the leaners the learner training would help students in learning. The learner training offered to young leaners should have been provided at least two sessions because some of young learners have limited experience in using some devices compared to students in higher levels. They need a teacher to be a facilitator to guide them closely how to use technology in learning (Stockwell & Hubbard, 2013).

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