

ผลการใช้การสอนแบบโครงงานที่มีต่อความสามารถในการพูดภาษาอังกฤษ
ของนักเรียนชั้นมัธยมศึกษาปีที่ 3

The Effect of Project-Based Learning on English Speaking Ability
of Matthayomsuksa 3 Students

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บทคัดย่อ

การศึกษาครั้งนี้มีวัตถุประสงค์เพื่อ 1) ศึกษาผลการใช้การสอนแบบโครงงานต่อความสามารถด้านการพูดภาษาอังกฤษของนักเรียน 2) ศึกษาความพึงพอใจของนักเรียนที่มีต่อการสอนแบบโครงงาน กลุ่มตัวอย่างที่ใช้ในการศึกษาครั้งนี้เป็นนักเรียนชั้นมัธยมศึกษาปีที่ 3 โรงเรียนเชียงของวิทยาคม อำเภอเชียงของ จังหวัดเชียงราย จำนวน 40 คน โดยใช้วิธีการคัดเลือกแบบเจาะจง เครื่องมือวิจัยที่ใช้ในการศึกษานี้ได้แก่ แผนการสอนจำนวน 2 แผน ได้แก่ แบบทดสอบการพูดภาษาอังกฤษ แบบทดสอบความรู้ทางด้านภาษาก่อนและหลังการทำโครงงาน แบบสอบถามความพึงพอใจ และแบบบันทึกการเรียนรู้ (Learning log) สถิติที่ใช้ในการวิเคราะห์ข้อมูล ได้แก่ ค่าเฉลี่ย ค่าเบี่ยงเบนมาตรฐาน และการทดสอบที (t-test)

ผลการวิจัยแสดงให้เห็นว่า การสอนแบบโครงงานสามารถพัฒนาความสามารถในการพูดภาษาอังกฤษ โดยคะแนนการทดสอบหลังการเรียนของนักเรียน ($M = 21.26$, $S.D. = 1.99$) สูงกว่าคะแนนทดสอบก่อนการเรียน ($M = 14.06$, $S.D. = 1.86$) อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.01 และนักเรียนมีความพึงพอใจในการเรียนภาษาอังกฤษด้วยโครงงานอยู่ในระดับสูง

คำสำคัญ: การเรียนรู้โดยใช้โครงงาน ทักษะการพูดภาษาอังกฤษ

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Abstract

This study aimed to 1) investigate the effect of project-based learning on students' English speaking ability, and 2) study students' satisfaction towards project-based learning. The samples of this study were 40 matthayomsuksa 3 students at Chiangkhong Wittayakhom School, Chiangkhong district, Chaing Rai province, selected by using purposive sampling. The research instruments included two lesson plans, an English-speaking test, the project pre-test and post-test, the satisfaction questionnaire, and a learning log. The statistics used to analyze the collected data were percentage, mean, standard deviation, and t-test.

The findings showed that project-based learning could improve students' speaking ability. The mean score of the post-test ($M = 21.26$, $S.D. = 1.99$) was higher than the mean score of the pretest ($M = 14.06$, $S.D. = 1.86$) with the statistical significance level of 0.01 ($p < 0.01$). Additionally, the students' satisfaction toward project-based learning overall was at a high level.

Keywords: Project-Based Learning (PBL), English Speaking Ability

Introduction

English is widely used in Thailand such as education, business, technology, and politics. Nanthaboot, P. ([http://thesis.swu.ac.th/swuthesis/Tea_Eng_For_Lan\(M.A.\)/Pranee_N.pdf](http://thesis.swu.ac.th/swuthesis/Tea_Eng_For_Lan(M.A.)/Pranee_N.pdf), 2021) stated that English is a key to open the door that contains a lot of knowledge and experiences which let people understand the difference of cultures, do trading, exchange idea to solve problems, get more information, and make things successful. The importance of English is also a priority for the Thai government. The Thai government is also concerned with the importance of English. Hence, English is placed in the curriculum to develop learners' English ability in both primary and higher education (Ministry of Education, 2008 : 105). In 2014, the Ministry of Education announced the policy to raise the standard of English learning and teaching schools by adopting the Common European Framework of Reference for Languages (CEFR) as the main means for managing English language learning and teaching, identifying the goals of learning, designing curriculum,

developing teaching and learning, testing and assessment, and developing teachers. The framework divides learners into three broad divisions that can be divided into six levels (A1, A2, B1, B2, C1, and C2). So, the Ministry of Education has set the CEFR English language proficiency goals for Thai learners at the level of basic users (A2) for matthayomsuksa 3 students and the level of independent users (B1) for matthayomsuksa 6 students.

To enhance students' English proficiency, many teachers in Thailand have tried so hard to help their students use English as a means for communication so that students can express their ideas and give their information to others by speaking or writing. Nevertheless, it seems that both teachers and students have been facing problems of using English for communication although the English language has been taught in Thailand for a very long time (Somdee and Suksan, 2013 : 55). Similarly, Castaneda (2014 : 155) stated that there are two main problems in learning English; teachers' problems and students' problems. For teachers' problems, they mostly use the traditional teaching method that emphasizes grammatical structure. For students' problems, it seems that students do not pay attention and lack the motivation to learn English. Consequently, the students have difficulties in learning English. They are not confident in speaking English while some students lack the motivation to study English in their classes. Kavlu (2015 : 52) also mentioned that to encourage learners to participate in the activities, the use of effective learning methods, techniques, and suitable activities are needed in English teaching. Moreover, teachers should help students to be well prepared for the future in both social skills and English skills. Students should be provided opportunities to work with their friends, listen to other opinion, and express their information. They should have opportunities to choose what they want to know and look for the answers that meaningful for their lives.

Many studies (Fragoulis, 2009 : 113 ; Kavlu, 2015 : 52 ; Simpson, 2009 : 90 ; Licht, 2014 : 49) have demonstrated the value of Project-Based Learning approach (PBL), indicating that it can help students integrates both language skills and content in the learning process. It also enables students to learn to communicate, think critically, and be creative. Moreover, Kalabzova (2015 : 35) mentioned that students with PBL have to deal with a task using teamwork and bring problem-solving skills to real-world situations. Thus, with a PBL environment, students can develop their critical thinking and interpersonal skills

and are encouraged to learn English (Tamin and Grant, 2013 : 13 ; Kettanun, 2014 : 567). In addition, Dooly and Sadler (2016 : 26) stated that PBL influences learners to develop their English speaking and then develop language ability.

From the reasons mentioned above, it is evident that PBL is an effective method to improve students' English language ability. As the teacher at Chiangkhong Wittayakhom School, Chiangkhong district, Chaing Rai province, the researcher observed that most of the students had difficulties in learning English. The school which borders Ban Houayxay, Bokeo Province, Laos PDR is an inclusive education school with both children with special learning needs and children from different ethnic groups studying in the same classroom. Students are passive learners. They are shy to speak English while some students lack the motivation to learn English. They like to use their mother tongue more than English and do not realize the importance of English speaking. In addition, according to the assessment of the English learning achievement of the students, it was found that the students' English speaking ability does not achieve the expected goal.

Accordingly, it is necessary to study whether project-based learning is effective in enhancing English speaking skills of the students at Chiangkhong Wittayakhom School . The projects assigned in this study would relate and suite the context of Chiangkhong district which is famous for tourist attractions in Chiang Rai as it is necessary to design a learning program that suits the need of different students in order to develop students' English ability and increase their motivation in studying English. The results of this study could help teachers find an appropriate way to enhance students' English speaking ability.

Objectives of the Study

1. To investigate the effects of using project-based learning to develop English speaking ability of Matthayomsuksa 3 students.
2. To study the students' satisfaction towards project-based learning.

Significance of the Study

This research was significant for two reasons.

1. It provides researchers a model to help students improve their English speaking skills and a model for promoting active learning in the classroom.
2. It would be useful for English teachers in planning the curriculum to strengthen the students' English speaking and learning abilities.

Scope of the study

1. The population in this study was matthayomsuksa 3 students. The participants were 40 students from Chiangkhong Witthayakhom School, Chiang Rai in the academic year 2018 selected by purposive sampling. The study was conducted in two months with 3 hours per week in a classroom.
2. The independent variable was the project-based learning approach and the dependent variables were English speaking ability and students' satisfaction.

Research Methodology

The present study employed a single-group pretest-posttest experimental design combining quantitative and qualitative data collection to investigate the development of the students' English speaking ability and the students' satisfaction toward the project-based learning approach. However, this paper focuses only on the quantitative data results.

Population and participants

1. The population of this study was the 9th grade (Matthayomsuksa 3) students from Chiangkhong Wittayakhom School, Chiang Rai, studying English 23102 subject during the second semester of the academic year 2018. The total number of the students was 142.

2. The participants were 40 students from matthayomsuksa 3/1 who enrolled in English 6 (23102) subject in the second semester of academic year 2018. The participants were selected by purposive sampling due to the fact that the students were in EIS (English Integrated Studies) program and they had a low score of English. During the eight weeks of teaching, the researcher taught the participants by using Project-Based Learning method.

Research instruments

The research instruments used in this present study were 1) two lesson plans, 2) English speaking test, 3) the project test for young guide project and young chef project, 4) satisfaction questionnaire, and 5) a learning log.

The three experts in English language teaching and learning, a university professor at Chiangrai Rajabhat University and two experienced school teachers at Chiangkhong Wittayakhom School, examined the research instruments to check the content validity was measured by using Item Objective Congruence (IOC).

Data Collection

1. An English teacher and the researcher interviewed students by using an English speaking test before the process of teaching.
2. Before starting each project, the students took the project pre-test
3. The students were taught using the project-based learning approach with two lesson plans. They were assigned to do two projects that were 'Young Guide' and 'Young Chef'. There were totally 23 hours (8 weeks).
4. Students were required to record their experiences, thoughts, feelings, and reflections in the learning log at the end of each project.
5. After completing each project, the students took the project post-test.
6. The students were asked to rate their satisfaction toward learning English using project-based learning in the questionnaire as well as to write their opinions in the open-ended question section.

Data Analysis

The researcher examined project-based learning to develop students' English speaking ability before and after learning through project-based learning. The pre-test and post-test scores were assessed by the two raters, including an English teacher and a researcher. The findings were calculated and statistically compared by t-test to find any significant difference in students' English speaking ability.

Table 1 Scores of speaking tests before and after Project-Based Learning Approach

English speaking ability	N	Mean	S.D.	t	p-value
Pre-test	40	14.06	1.86	37.7	.000*
Post-test	40	21.26	1.99		

*p < 0.01

From the table above, it was found that the mean score of the students' pre-test was 14.06 and the standard deviation (S.D.) was 1.86. The mean score of the post-test was 21.26 and the standard deviation (S.D.) was 1.99. It revealed that the mean score of the post-test was significantly higher than the pre-test at the level of 0.01.

Table 2 Scores of English speaking test in each aspects

Aspects of English speaking ability	Total score	Pre-test		Post-test		t	p-value
		Mean	(S.D.)	Mean	(S.D.)		
Fluency	5	2.65	(0.64)	3.86	(0.55)	15.58	.000*
Pronunciation	5	2.82	(0.65)	4.15	(0.58)	13.18	.000*
Vocabulary	5	2.55	(0.54)	4.33	(0.63)	15.89	.000*
Grammar	5	2.79	(0.60)	4.25	(0.53)	13.73	.000*
Body language and gestures	5	3.25	(0.38)	4.68	(0.48)	19.57	.000*
Total	25	14.06	(1.86)	21.26	(1.99)	37.7	.000*

*p<0.01

Table 2 shows the means of the pre-test scores in each aspect of English speaking ability. The findings revealed that the mean of the post-test were higher than those of the pre-test in all aspects with the statistically significant level at 0.01.

Table 3 Results of students' satisfaction with English teaching using the Project-Based Learning approach

Items	$\bar{x}$	S.D.	Meaning
1. Project-based learning is interesting for me.	4.08	0.78	High
2. Project-based learning gives me an opportunity to speak English.	4.05	0.71	High
3. Project-based learning helps me improve my English pronunciation.	3.85	0.74	Moderate
4. Project-based learning helps me to develop my English speaking skills.	3.85	0.77	Moderate
5. Project-based learning helps me to improve my grammar and vocabulary.	3.88	0.69	Moderate
6. I enjoy studying while doing project-based learning activities.	4.18	0.81	High
7. I have more confidence to speak English after I practiced project-based learning activities.	3.85	0.83	Moderate
8. Project-based learning activities inspire me to think and have more self-confidence.	3.88	0.82	Moderate
9. I understand the importance of studying English after I practiced project-based learning activities.	4.07	0.89	High
10. Project-based learning makes me like studying English more.	3.72	0.82	Moderate
Total	3.94	0.52	High

Table 3 presents the results of students' satisfaction with English teaching using the Project-Based Learning approach. From the result, it was found that the students' overall satisfaction was at a high level ($M = 3.94$, $S.D. = 0.52$). Considering each item, the highest mean score was item 6 "I enjoy studying while doing project-based learning

activities.” ($M = 4.18$, $S.D. = 0.81$) and item 10 “Project-based learning makes me like studying English more.” ($M = 3.72$, $S.D. = 0.82$).

Discussion and Conclusion

The findings show that Project-Based Learning helps students improve their English speaking ability. This study is in accordance with other studies done by other researchers e.g. Domesrifa, ([http://thesis.swu.ac.th/swuthesis/Tea_Eng_For_Lan\(M.A.\)/Kamonwan_D.pdf](http://thesis.swu.ac.th/swuthesis/Tea_Eng_For_Lan(M.A.)/Kamonwan_D.pdf), 2021); Kettanun, (https://www.researchgate.net/publication/25479_Project_based_Learning_and_Its_Vailidity_in_a_Thai_EFL_Classroom, 2021) ; Nanthaboot, ([http://thesis.swu.ac.th/swuthesis/Tea_Eng_For_Lan\(M.A.\)/Pranee_N.pdf](http://thesis.swu.ac.th/swuthesis/Tea_Eng_For_Lan(M.A.)/Pranee_N.pdf), 2021) ; Thongmark, ([http://thesis.swu.ac.th/swuthesis/Ta_Eng_For_Lan\(M.A.\)/Atikarn_T.pdf](http://thesis.swu.ac.th/swuthesis/Ta_Eng_For_Lan(M.A.)/Atikarn_T.pdf), 2021) who argue that project-based learning help develop speaking skills. It can be argued that the improvement of students resulted from the teaching processes implemented in the teaching program. In this study, students had an opportunities to speak English by doing the activities and did the project with their peers. While they did the activities, the students tried to speak English. They also helped each other to improve and develop their speaking skills. As evident in this study, the activities in this program are different for other classes. Students were encouraged to learn by exploring, gathering, and synthesizing information in this program. Therefore, students' English speaking improvement results from the appropriate teaching and learning activities implemented in this study that provided opportunity to practice speaking English and develop speaking ability. This can be supported by the view of Nunan (1991 : 279) who stated that if a teacher uses the appropriate speaking activities, speaking class might be a lot of fun, raising and encouraging students' motivation in English speaking learning. As project-based learning implemented in this study required the students to speak English in order to complete their tasks, it encouraged students to speak English as Dooly and Sadler (2016 : 26), pointed that Project-Based Learning influences learners to create their own language in speaking and develop language ability.

Another important finding worth mentioning is the project-based approach used in this program enhanced students' confidence in speaking English. In this study, students

raised their hands to ask questions; this did not happen in regular English class. They enjoyed speaking English when they did the activities. Some students were proud of themselves because they could answer the questions using English to help their group get more points. The development of language ability and confidence could arise from the fact that students had a chance to use language in meaningful activities and in real contexts, resulting in the development of speaking strategies, speaking ability, and confidence. As Haines (1989 : 17) stated that students can improve language skills because they can use language in real contexts, use purposeful communication to achieve the activities, and participate in meaningful activities using language leading to develop language ability and confidence.

Concerning students' satisfaction with the teaching program, it was found that students had high satisfaction with English teaching using the project-based learning approach. This finding is consistent with previous studies (e.g., Bas, (<https://www.tojned.net/journals/tojned/articles/v04/1i-01.pdf>, 2021) ; Nanthaboot, ([http://thesis.swu.ac.th/swuthesis/Tea_Eng_For_Lan\(M.A.\)/Pranee_N.pdf](http://thesis.swu.ac.th/swuthesis/Tea_Eng_For_Lan(M.A.)/Pranee_N.pdf), 2021) ; Nassir, 2014 : 27). In this study, students mentioned that they did not only develop their English speaking skills, but also had a chance to work as a team, solved problems by finding the best solution for their team, and have more responsibility in their jobs. This was consistent with Castaneda's view (2014 : 155) indicating that while the learners are doing the project, they can construct knowledge and also use a foreign language to solve problems by themselves. Similarly, Kalabzova, (<https://otik.uk.zcu.cz/bitstream/1102/19660/1/KALABZOVA2thesis.pdf>, 2021) stated that the advantage of using PBL leads students to work with authentic material through teamwork and bring a sense of problem-solving in real situations. Therefore, in a PBL environment, students can develop their critical thinking and interpersonal skills, and feel encouraged to study English (Kettanun, 2014 : 567 ; Tamin and Grant, 2013 : 13).

In summary, the potential of project-based learning for supporting English language learning is significant. Using this approach, teachers can make full use of project-based learning to help students prepare well for the future in both English skills and social skills as well as preparing for future careers.

Limitations of the Study

There are some limitations in this study as follows:

1. This study was conducted with one school in Thailand. The outcomes from the study may not be able to be generalized into other contexts.
2. This study was conducted with students in one classroom. If the study were to be implemented in the future, project-based learning should be implemented with two classrooms so that the results can be compared.

Recommendations for Further Studies

The following suggestions could be beneficial to English teachers who are interested in using project-based learning to improve and develop their students' speaking ability.

1. This study only investigated matthayomsuksa 3 students' speaking ability. Research on using project-based learning should be conducted using students of different ages in various levels of education.
2. Researchers should use project-based learning activities to develop students' other skills such as writing ability.
3. Researchers should apply project-based learning to teach other languages in order to develop the learners' speaking in the target language.
4. Researchers could apply project-based learning to develop workers' speaking ability in other workplaces such as in a restaurant, hotel, or spa salon to prepare them for using English as the main language of communication.

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