



USING DIGITAL PROJECT-BASED LEARNING TO ENHANCE EFL STUDENTS'
ENGLISH SPEAKING SKILLS



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A Thesis Submitted in Partial Fulfillment of the Requirements
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THE THESIS TITLED
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BY
ATTAPORN PRATUMCHAT

HAS BEEN APPROVED BY THE GRADUATE SCHOOL IN PARTIAL FULFILLMENT
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This research aims to enhance the English-speaking skills of EFL students through digital project-based learning (DPBL). The objectives were as follows: (1) to explore the effects of DPBL on the English-speaking skills of lower speaking-proficiency students; (2) to explore the effects of DPBL on the English-speaking skills of higher speaking-proficiency students; (3) to compare the effects of DPBL on the speaking skills of EFL students in lower speaking-proficiency groups to higher speaking-proficiency groups; and (4) to investigate the opinions of the students about teaching speaking through DPBL. The participants consisted of 60 twelfth grade students divided into two groups: 30 lower speaking-proficiency students and 30 higher speaking-proficiency students. The research instruments included twelve lesson plans, an English-speaking test, a questionnaire, a semi-structured interview, and a rubric of speaking skills. The mean scores, standard deviation, a *t*-test analysis, and the analysis of covariance were used to analyze the quantitative data, while content analysis was used to analyze the qualitative data from the semi-structured interviews. The results revealed that there were statistically significant differences in the pretest and posttest mean scores of the higher speaking-proficiency students ($t = 18.67, p < .05$) and the lower speaking-proficiency students ($t = 12.04, p < .05$). This suggested that DPBL had positive effects on students from different backgrounds. The results from the questionnaire revealed that students had highly positive opinions about learning speaking through DPBL ($M = 4.34$). This indicated that the students favored this teaching method. This study pointed out that DPBL can be a good teaching method to enhance the speaking skills of the students.

Keyword : Digital Project-Based Learning, EFL Students, English Speaking Skills

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CHAPTER I

INTRODUCTION

Background

Nowadays, English plays an important role in our life. It has become an international language of communication. There are 53 nations using English as an official language (Martin, 2002). Besides, the numbers of English learners increase continually, and there will be 2 billion speakers worldwide in the years of 2030 (Graddol, 2006). Therefore, people need to use English to communicate and socialize with other people around them, and it keeps them in contact with other people around the world. Moreover, English is the most widely used language of communication for many purposes like education, business, entertainment and information technology and so on. For example, English has become the official language of the internet due to the rapid growth of Information Technology (Ananiadou (2011). Everyone can access to the features of internet across the countries to increase opportunities for learning in and beyond the classroom and to open up new career opportunities. Consequently, English in the globalization becomes the key in searching for knowledge and information. It is clearly seen that English is important.

Similarly, English plays significant role in Thailand. Since Thailand now has become one of the members of Association of Southeast Asian Nations, or ASEAN, in 2015 to have a free flow of goods, services and skilled workforce. All members have agreed to use English as an official language to communicate and negotiate with ASEAN members for business. Thus the citizens in these country need to be competent in English language (Jindathai, 2015). As a result, Thai government attempts to enhance greater fluency in English language among Thai students and makes Thai people better prepared for the economic competitiveness both individually and as a nation. According to Ministry of Education (2004) English education in Thailand aims to enhance students' language proficiency and provide students with beneficial learning methods and strategies to improve the use of English for social and academic purposes. To reach these goals,

Thailand has adopted a student-centered learning and focused on communicative language teaching as key procedures to facilitate the language learning process and improve communicative skill in order to improve Thai learners to communicate English fluently (ibid.).

Unfortunately, speaking skills of Thai people are at the unsatisfactory level. Speaking is considered the most difficult skill for Thai people, and they still face the problem in speaking. As shown in Test Taker Performance from IELTS in 2017, Thai people's speaking performance ranked the 35th from 40 countries. The score summary was 5.91 (out of 9) which is lower than the overall of IELTS score at 5.98 (IELTS, 2017). In addition, Educational Testing Service (EST) - the world's largest organization for educational testing and assessment based in USA, has reported the results of Test of English as a Foreign Language internet-based Test (TOEFL IBT) that in speaking part, Thai students' English speaking proficiency is the lowest skill comparing with other skills. Thailand ranked 20 out of 30 countries in Asia (The Nation Thailand, 2013.) (Education Testing Service, 2018). These evidences showed the clearly poor speaking competency of Thai and teachers need to urgently improve.

There are many factors that lead to unsatisfactory level of English speaking performance although the students have been studying English for more than ten years. First, students are lack of confidence. They are worried about speaking because they are afraid of mistakes. This notion is supported by Wanthanasut (2008) who states that when they speak in English, they are afraid to be judged as silly and incomprehensible people. More importantly, they are rarely exposed to English speaking environment. That is, they are lack of opportunities to apply English speaking skills in real life situation effectively. Besides, the teaching methods is another factor. Many teachers still teach students with the traditional atmosphere in classroom which students sit quietly and listen to a teacher; students do not have chances to express their ideas and thoughts. Therefore, they are not able to apply speaking skills in real life situation effectively. Consequently, these factors lead students to have poor results of English speaking skills.

Teachers are expected as the powerful factors that can change the classroom to improve students' English speaking skills. However, most of Thai teachers still teach in their teaching styles that start to fossilize into ones of rote-learning, teaching grammar and translation with Thai as the medium of instruction, teacher-centered classroom activities, and so on (Noomm-ura, 2013). Latha and Ramesh (2012) mentioned that teachers should not only teach, but also create the interesting activities, techniques and a good relationship with the learners in order to make classroom lively and encourage them in learning. To promote speaking skills of Thai students, teachers need to change their roles and their methods to make students be the active learners. Moreover, teachers should focus on active learning methods in which students can plan their lesson, act by themselves, brainstorm from their ideas, cooperate with others (Kayi, 2006).

One of the teaching methods which many scholars claim that it can help students to be active learners is project based learning (PBL). This method is different from traditional instruction because it emphasizes learning through student-centered learning method integrating real world situation (Ministry of Education Malaysia, 2006). Moreover, PBL encourages co-operative and skill-based skills during the process. Haines (1989) states that PBL provides students the opportunity to participate in learning activities with their group and make their own divisions related to the chosen topic of their project. It also provides opportunities for students to apply their background knowledge and skills in learning. Additionally, PBL emphasizes learning activities and real tasks that lead challenges for students to solve the problem. The activities basically show the types of learning that learners do in their daily lives outside the classroom, and the projects are done cooperatively by groups of students working together toward a common goal (Stivers (2010). Many research studies revealed the positive effects of PBL on students' language skills. For example , Anuyahong (2015) and Simpson (2011) investigated the implementation of PBL in English classroom and found that students developed English proficiency. For these reasons, PBL might be a good alternative method for teachers to enhance students' English speaking skills.

Nowadays, the development of digital technology grows globally. Digital technology has been playing significant role and can be utilized for many aspects in our life around the globe especially in educational purpose. It offers new opportunities for teachers and students to apply online resources to help both teaching and learning interesting and meaningful. According to Shih (2013), with the advancement of Information Technology (IT), it creates social networking such as YouTube, Flickr, blog, Facebook and Twitter which help knowledge exchange through online meeting and discussion. Users can exchange, interact, collaborate, and socialize with others in virtual communities through these applications. Furthermore, social networking provides students with more enjoyable and comfortable learning environment. Also, it decreases students' anxiety and boredom in the classroom and increases students' motivation (Hanif, & Rozilawati. 2006). According to Almurashi (2016), YouTube is one of the most famous social network websites which provides effective ways to success in learning English both inside and outside of the classroom for improving various skills such as listening, speaking, pronunciation and vocabulary etc. Similarly, Khalid and Muhammad (2012), students can learn speaking English effectively by using YouTube. They have great opportunity to observe how native speaker speaks English from the video. In addition, students are enjoyable and confident when practicing expression, intonation, and vocabulary correctly. Besides, YouTube also provides authentic vocabulary development and lets the students having exposure toward autonomy in learning (Watkins and Wilkins, 2011). Another new trends in education nowadays is Facebook in which users can post comments, photos and videos, create live videos, send instant message and attach files. According to Shih (2013), students interact, collaborate and communicate with friends, family and meet new people from different countries actively in a virtual community by Facebook. Moreover, Phillips (2010) pointed out that Facebook offers teachers and learners great opportunity to present their ideas effectively, lead online discussions, and collaborate. Therefore, YouTube and Facebook are the advancement of digital technology which provide innovative ways for the teachers to enable learners to engage actively in different activities.

With the attempt to develop students' speaking skills and to make English speaking class more lively and interesting, the researcher would like to collaborate PBL teaching method with digital technology, also called digital project-based learning (DPBL). It can be a good alternative for EFL teachers to encourage the learners to participate actively and effectively in classroom activities. Students can join the active learning atmosphere, and at the same time they can get more knowledge from technology. Therefore, this study aims to study the effects of digital project-based learning on EFL students' English speaking skills.

Objectives of the Study

1. To explore the effects of DPBL on English speaking skills of lower speaking-proficiency students.
2. To explore the effects of DPBL on English speaking skills of higher speaking-proficiency students.
3. To compare the effects of DPBL on speaking skills of EFL students in lower speaking-proficiency group to those of higher speaking-proficiency group.
4. To investigate the students' opinions about teaching speaking through DPBL.

Research Questions

1. Are there any differences in the pretest and posttest mean scores of lower speaking-proficiency students?
2. Are there any differences in the pretest and posttest mean scores of higher speaking-proficiency students?
3. Are there any differences in the effects of DPBL on speaking skills of lower speaking-proficiency students and higher speaking-proficiency students?
4. What are the students' opinions about teaching speaking through DPBL?

Significance of the Study

This study reveals the effects of using DPBL on EFL students' English speaking skills. The results can help the students who studied through this teaching method enhance their English speaking skills and increase positive opinions about learning English speaking through DPBL. Moreover, the results can provide the guidelines for teachers who are interested in the DPBL for developing language lessons which improve students' language competency and success in the digital age. It can be an alternative method for teachers to develop students' English speaking skills. In addition, the study will benefit educators to improve curriculum and revise English courses for EFL students. Finally, the results of this study can be used as a guideline for further studies.

Scope of the Study

This study focused on the effects of using Digital Project Based Learning on students' English speaking skills. The data were obtained from 60 twelfth-grade EFL students who currently studied at Setthabut Bamphen School. The participants were selected by a simple random sampling procedure from the English speaking scores in the first semester of the academic year 2020. In this study, the projects limited to YouTube and Facebook.

Definitions of Key Terms

1. **Digital Project-Based Learning** refers to a teaching method which provides students with chances to manage project as a medium to complete learning goals, and the project is carried out or accessed by means of digital technology, namely, Facebook and YouTube. The teaching method is divided in to six stages: an essential question, designing a plan, creating a schedule, monitoring students, assessment and reflection.

2. **Speaking Skills** refer to an interactive process between listeners and speakers in the different contexts. In this study, the researcher focuses on two components: pronunciation and fluency.

3. **English as a Foreign Language (EFL) students** refer to students who study English as a foreign language. They learn and use English as an additional language in a non-English speaking country. Specifically, in this study, it refers to the 12th - grade students studying at Setthabut Bamphen School.



CHAPTER II

LITERATURE REVIEW

This chapter presents information related to the studies obtained from reviewing related literature and studies. It consists of 5 parts. The first part discusses the definitions of PBL, the characteristics of PBL, the stages of PBL and the advantages of PBL. Secondly, it illustrates the digital technology, using digital technology in classroom and advantages of YouTube and Facebook in language learning. Thirdly, it presents the definitions of speaking, the components of speaking skills, the assessment of speaking, and rubrics of speaking skills. Fourthly, it illustrates English as foreign language (EFL) students. Lastly, it is about the studies relevant to PBL in improving students' English language learning.

1. Project-Based Learning (PBL)

1.1 Definitions

There are many definitions of the PBL proposed by educators. According to Bell (2010), PBL is a teaching method centered on the learners searching for the solution to a question under the teachers' guidance. In the similar way, the Buck Institute for Education (2018) reveals that PBL is a teaching method that encourage students to receive knowledge and skills through exploring the answer of problem or question. Moss and Van (1998) state that it is an instructional method that encourages students try to find out the answer through problems. Ribe and Vidal (1993) defines PBL as a systematic teaching method which can shift students' language proficiency, cognitive domains and global personality competency through projects. To conclude, PBL is a systematic learning method that provides chance to students to manage project as a medium to complete learning goals. Students try to find out the answer or the way to solve the problem.

1.2 The Characteristics of Project-Based Learning

Many educators have investigated PBL, and there are coherent characteristics of this teaching methodology. The characteristics can be grouped into themes as follows:

First, driving question is important characteristic of PBL. It is an open-ended question related to a real-world problem that students find interesting and important. According to Simpson (2011) driving question guides students to think and learn how to uncover topics and generate solutions, it also inspires students to seek information, solve problems, and pursue passions. Furthermore, it helps students' projects focused on important learning, and learners are challenged to obtain deeper with subject-specific content questions that arrange their research Buck Institute for Education (2018). In conclusion, students learn through the driving questions which interest them to seek deeper information, solve problems and complete their projects.

Next, PBL is co-operative and skill-based. Haines (1989) mentions that co-operative and skill-based are the characteristics of the PBL. During the process, students participate in their group, and they make the decisions which related to the topic, working method and the final project. They need to work together to complete their project. In addition, students will gain the skill-based learning during the process. PBL offers students to receive the knowledge through classroom and encourage them to experiment the learning process. The skills that occur during the learning will be transferred to students naturally.

Third, thinking skills are one of the characteristics. PBL develops both metacognitive and cognitive thinking skills such as collaboration, self-monitoring, analysis of data, and evaluation of information (Stivers, 2010). Furthermore, these skills help students to make thoughtful decisions and exercise reasoned judgments. During the project, questions challenge learners to think and make relations to concepts that matter in the real world. Students need to apply thinking skills to collect, evaluate and make use of information effectively and appropriately (Beyer (1985). Therefore, students are able to

use their thinking skills to investigate problems, ask questions, pose new answers, and discover new information that can be used for their projects.

To sum up, the main characteristics of PBL are learning through the driving questions and the interesting topic, co-operative and skill-based, and thinking skills such as collaboration, self-monitoring, analysis of data, and evaluation of information.

1.3 Advantages of Project-Based Learning.

PBL is supported as an interesting teaching method since it provides several advantages.

First, PBL helps students to become more confident. According to Fried-Booth (2002), PBL provides chances for students to become more independent in learning. Doing their project, are in control of their learning such as allowing them to decide who to work with, what materials or resources to use, and what to create. In other words, students take ownership of their own learning. This make them become more confident (Simpson, 2011). Also, reflection or feedback from teachers and peers can build confident learners (Buck Institute for Education, 2018).

Second, PBL promotes students' engagement. In PBL, students have chances to transfer the knowledge from the lessons to connect with the real world. PBL supports them to use the authentic language in the immediately situation they face. They apply previously learnt language in useful ways and link their background knowledge information to the attractive contexts (Mills, 2009; Stoller, 2006 (Stoller, 2006)). They learn to discover, check, and understand their world. It helps to make learning relevant and useful to students by linking relationship to life outside of the classroom (Fragoulis, 2009). In this way, learning is meaningful to them.

Third, PBL promotes students' creativity. According to Gustina and Sweet (2014), students can create new product designs and possibilities for their projects whereas teachers select, organize, and plan activities specifically and carefully for students to engage in creativity. Moreover, the advancement of technology makes the possibility for students to apply their learning through the use of technology and use their creativity in the projects (Lynch, 2017). This enhances students' creativity.

Fourth, students can gain several needed skills in daily life through the realistic activities. First, PBL provides students' social skills. According to Omar et al (2012), through group work, students experience language learning in a cooperative situation while doing the process of project. Students learn the fundamental skills of productive communication, respect for others, and teamwork while generating ideas together. Next, PBL offers technology skills. It provides more options for students to enhance their projects and gives them the knowledge of how to acquire the knowledge they may need (Stiver, 2010). It also support classroom instruction by creating chances for students to search for information, find the answer, solve the problem and succeed their projects efficiently (Schuetz, 2018). Moreover, the important skills are communication and collaboration skills. According to Larmer and Mergendoller (2010), PBL directs students to work together, it encourages them to collaborate with their group members. In addition, students need to communicate with the teacher and peers while doing their projects. Students work better in groups, provide their own input, listen to others, and solve problems to complete the projects.

It can be concluded that PBL has many advantages. It provides chances for students to enhance their confidence and become more independent in learning. Furthermore, it promotes students' engagement, creativity and several needed skills in daily life through the realistic activities such as social skills, technology skills, and communication and collaboration skills.

1.4 The Stages of Using Project-Based Learning

There are various forms of teaching through PBL. Ministry of Education, Malaysia (2006) suggests six stages of PBL. The essential question is at the first stage. Teachers give students the open-ended question to let them in learning activities. The questions should base on situations or topics which are authentic. Students need to deal with the unexplained condition from the questions, and they need to find out the answer in the next stage.

The second stage is designing a plan for the project. In this stage, teachers involve students in the planning process and taking ownership in the project in which they

have an active role in choosing their own activities. Teachers have to provide students with resources and materials as well as guidance, such as where and how to explore deeper into new topics and issues as they become more involved in the tracking of the answers.

The third stage is creating a schedule. Designing a plan leads to the stage of creating a schedule to manage a timeline for the project components and realize that changes may occur during the process. In this stage, teachers help students to realize when they need to complete their thoughts, findings, and evaluations. Furthermore, the schedule makes students to go in new directions and direct them when their works are not related to the topic.

The fourth stage is monitoring students while students are doing on their projects, teachers are the monitors who guide students on learning how to succeed their project works, provide resources and materials to students and advice how to gain deeper information and knowledge. This helps them to find out the answers and solutions. In addition, students realize that they need to conclude their ideas, findings, and conclusion.

The fifth stage is assessment. After the completion of project, teachers assess the projects and give students feedback on how well they understand the information and what they need to improve on their work. Assessment also helps teachers design instruction to teach more effectively and allows self-assessment among students.

The last stage is reflection. It is a necessary part of the learning process. Students receive the reflection based on their performance, share feelings and experiences among their groups or colleagues, and they also discuss what works well and what needs change. In this stage, the sharing ideas can lead to new questions, and new projects will happen.

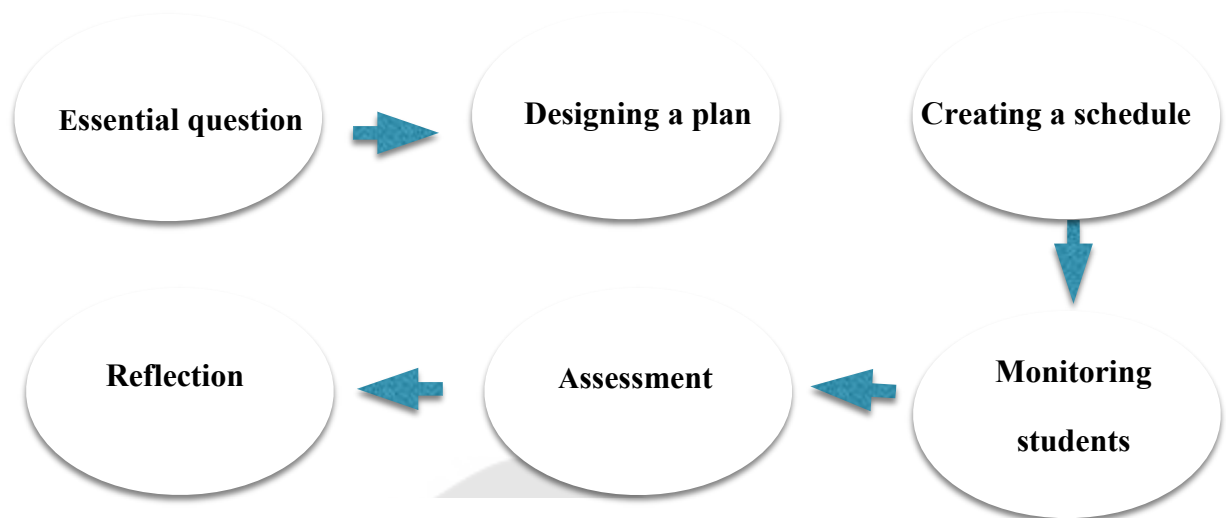


Figure 1 The stage of using project-based learning. Reprinted from Project-based learning handbook (p.22), by Ministry of Education, 2006, Malaysia: Educational Technology Division.

According to Krajcik and Blumenfeld (2006), there are five key stages of the PBL. The first stage is to identify a unique challenge or problem. Students find out a unique challenge that is authentic and relevant to their needs. An authentic challenge is one that connects the curriculum to either a career, local, a state, a nation, or a global community.

The second is to investigate the challenge using the inquiry process and apply ideas in disciplines. Disciplines are what students engage with to develop their ideas into solutions. The use of the discipline's academic language, application of standards, and knowledge of content is imperative to the structural design of the authentic challenge.

The third is to explore the ideas and challenge students through collaborative activities. The PBL process involves individual and group dynamics to help the students make meaning from the content and process to express that meaning. This happens from the onset of the experience and through each subsequent learning event.

The fourth is to utilize the inquiry process to refine products. This process reflects the complex social situations that students go through while solving problems and

innovating new products. As students develop their products, the continuous purifying process is what elicits higher quality work from them.

Finally, to develop the summative product that addresses the challenge or problem and publicly share it. Modeling, coaching, and scaffolding combined throughout a project help our students acquire the content and skills needed to reflect on and articulate their final solutions.

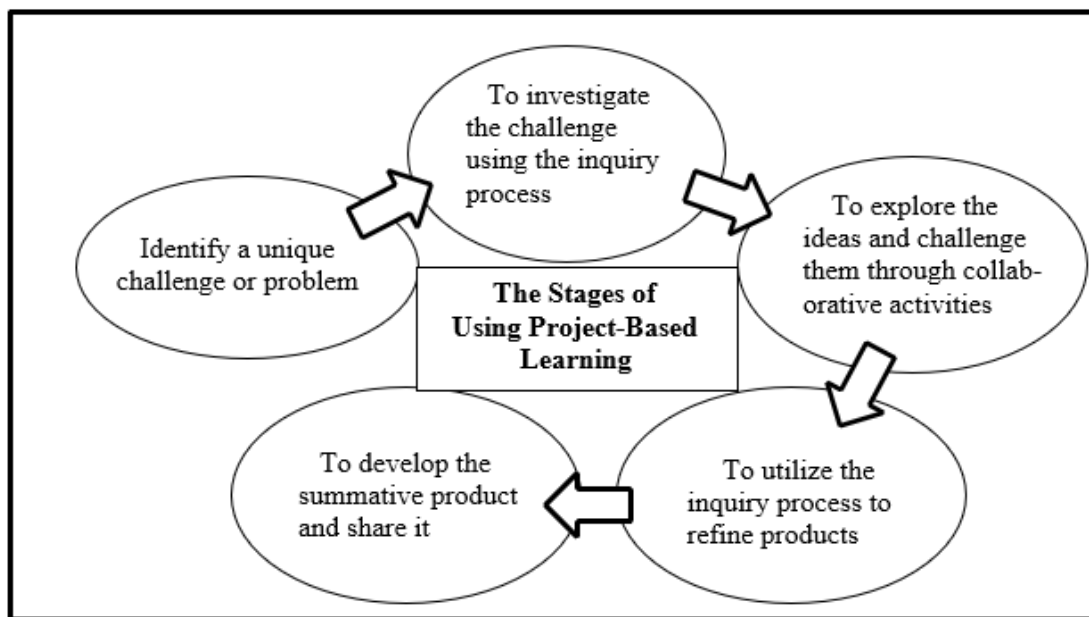


Figure 2 The stage of using project-based learning. Reprinted from *a collaborative model for helping middle grade teachers learn project based instruction* (pp. 483–497), by Krajcik and Blumenfeld, 2006.

Additionally, there is another notion about the steps of PBL. According to Kaar, Molen, & Schmidt (2014), PBL process can be divided into seven steps as follows:

First, clarifying unfamiliar terms: every group member needs to understand the information that is given because the unclear concepts in the problem discussion will make the students face the obstruct. Teachers let students read the problem and then check their understanding before moving to the next step.

Second, problem definition: Teacher ask students for possible problem definitions. After that, teachers notice each group what they understand.

Third, brainstorm: students in each group will help each other to express the ideas. Teachers allow all group members to stimulate all group member to contribute, summarize at the end of the brainstorm.

Fourth, analyzing the problem: students discuss the ideas and hypotheses in depth and analyze them in depth. Teachers make sure that all points from the brainstorm are discussed, and ideas shared from brainstorm are ordered and related to each other.

Fifth, formulating learning issues: teachers note down the learning goals and ask students for possible learning goals. After that, teachers check if all obscurities and contradictions from the problems have been converted into learning goals.

Sixth, self-study: students look for the relevant resources. They need to select carefully for resources to answer the questions in the learning goals. Students study the literature based on the learning goals. Students formulate answers to the questions through making an abstract or concept map.

Seventh, reporting: teachers ask students questions to promote the depth in the discussion and stimulate all group members to discuss. Then, students conclude the discussion of each learning goal with a summary.

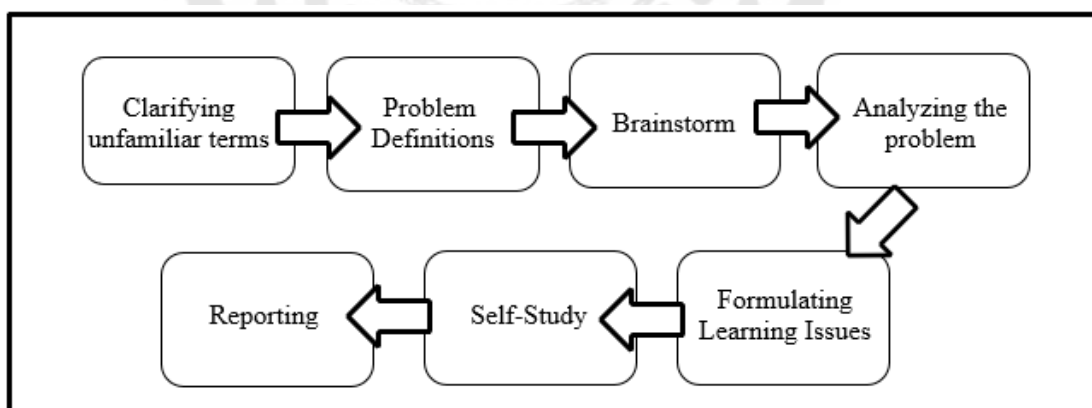


Figure 3 The seven stage of using project-based learning. Reprinted from step by step a guide for students and tutors (p. 7), by Kaar, A., Molen, H., & Schmidt, H., 2014

In conclusion, many scholars support that there are many advantages of PBL. In addition, there are many scholars proposed the frameworks for teaching PBL. However, this study used the model of six stages proposed by Ministry of Education, Malaysia (2006) because there was the previous research of Rubrica (2018) proved that this framework helped the students improve the academic achievement, critical thinking, motivation, and collaboration. Additionally, the educational context in both Thailand and Malaysia are similar which teachers and students still focused on the structure rather than speaking or communication. Moreover, students in both countries lack of opportunities to use English in their daily lives and lack of responsibility for their own learning. In addition, the English lessons are unchallenging which students are passive learners which they sit quietly in the classroom and do not have chances to participate with the class activities. Consequently, these problems lead to the unsatisfactory results of English language teaching and learning English in both countries. For these reasons, this framework was suitable for Thai educational context to improve students' language competency.

2. Digital Technology

2.1 Definition

The word "Digital Technology" is currently known widely because nowadays it relates to daily life in the society. Many educators define "Digital Technology" in various ways. According to Salmons and Wilson (2008), "Digital technology" is combined with "Digital" and "Technology." First, "digital" comes from Latin which means one of the oldest tools for counting or calculating. It will have the process to be converted to the numbers. Another word is "technology." The meaning is the usage of microprocessors which relates to computers and applications. The applications need to depend on computers or technology devices such as video cameras, mobile phones, or the devices which are in the form of personal-digital assistants. Also, "Digital technology" can be used to access to cyberspace or the connection of digital audio or video and information communications technology (ICT) to apply to various purposes effectively. Accordingly, Victory State Government (2019, p. 46) defines "Digital Technology" as electronic tools

or devices which generate, store or process data that link to social media, online games, multimedia and mobile phones. In addition, Jansard (2018) explains “Digital Technology” means the comprehensive skill and the skill for using technology which people use devices such as computers, mobile phone, tablet, program and social media online and get the most out of their benefits in terms of communication, working, and teamwork (p. 57).

According to the definitions above, it can be concluded that digital technology is the skill of using technology through devices; computers, mobile phones, tablet, to access social media or cyberspace in the specific purposes especially communication or cooperation (p. 57).

2.2 Using Digital Technology in Classroom

In the 21st century, digital technology is important in education. Students are living in the digital era which is marked by the use of technology as the medium of learning process. The ways students learn have changed remarkably through the decades. Most of the students use technology since it offers information for them in all aspects including language learning. As supported by UNESCO' International Institute for Educational Planning (2019), computer technology and other aspects of digital cultures have changed the ways of people in various aspects. The important consideration of curriculum frameworks is digital literacy which comprises of the searching skill, discerning, producing information, and the use of new media. Many countries integrate digital technology into the classrooms.

In Thailand, the government pays more attention to digital technology because they would like to change to educational system to be in the same ways as other countries. Hence, technology is specified in the education reform plans. Technologies become the effective tools to help the educational system develop. Also, it can provide the changes to the informal educational system. There are many projects that support using digital technology in classroom such as one tablet PC per child, the ICT room per school (Ministry of Education, 2002).

Many researchers express the advantages of technology in classroom. First, technology encourages students to learn. As supported by (Earle, 2002), many electronic devices are widely used as medium to link learning processes to technologies. Students can search for what they want to know through electronic devices. Second, students develop the searching skills for their life whenever they want to know information or in the interesting contents. López (2009) shows that students will be able to obtain a series of skills using technology; for instance, they can learn to search, they can select, and analyze information on the Internet for a specific purpose, or they can communicate and work collaboratively remotely through Internet resources. Moreover, technology benefits teachers. They can manage the tasks to each students' group who have the different background knowledge. Marqués (2001) agrees that technology provides the teachers to develop different strategies with different students of the same group. Teachers can use technology to manage students' work which depends on their interest or ability.

To sum up, digital technology has influenced on the daily life. People use it in the different ways depending on their purposes. In education, technology becomes medium in developing teaching and learning. Students will obtain more opportunities to search the information, work with others, find out their interesting, and get more motivation in learning. Two popular social networks which were created because of the digital technology are YouTube and Facebook. They are the tools that students commonly use in their daily lives to connect with other people around the world. Moreover, they are helpful tools which can make classroom easier for teachers to create collaborative learning environments, by placing learners at the center of the learning experience and teachers in their role as facilitators in the learning process (Pardo, 2013, p. 44). Consequently, this study focuses on YouTube and Facebook integrating to PBL to enhance students' English speaking skills.

YouTube

According to Khalid (2012) YouTube is a video-sharing website on which users can upload, share and view videos. Similarly, YouTube is a public-access Web-based platform which allows people to easily upload, view, and share video clips across

the internet through www.YouTube.com, other websites, mobile devices, blogs, and email (Burke, et al. (2009) Moreover, Jalaluddin (2016) defines that YouTube is a website that provides various kind of videos i.e., video clips, TV clips, music videos, movie trailers, and other content such as video blogging, short original videos and educational videos. Besides, it allows users to upload, view, rate, share and comment or give feedbacks on videos. Additionally, it lets unregistered users to watch videos and registered users to upload videos to their channels.

To be concluded, YouTube is a video-sharing website which allows unregistered and registered users to easily upload, view, rate and share video clips across the internet through www.YouTube.com. Furthermore, users can comment or give feedbacks on videos.

Facebook

Facebook is a social networking website which allows users who register for free profiles, to connect with friends, family, colleagues, and people around the world online (Ardi, 2012, p.29). Users are able to share pictures, music, videos, and articles, as well as their own thoughts and opinions. Other users can write messages on their pages and post comments on a wall. In the same way, Moir (2010) defines that Facebook is a social networking site which connects with family and friends online (p. 49). It allows users to send instant messages and post status updates to keep in touch with other users. Furthermore, users can also share different types of content such as photos, videos and links. Similarly, Red (2009), mentions that Facebook is currently the most popular social networking website which can be platform for an organization, such as a school or business, which helps members identify each other. Also, members can create their profiles including names, birthdates, pictures, and interests. Moreover, Mack et al. (2007) define Facebook that it is presently the most popular site which members connect to other members, called "friends." Each members possesses a "wall" that presents the member's up- dates, comments, uploaded photos, and more. Members are able to exchange information using the "wall" by sending instant messages. Additionally, members are able

to create online net-works of friends and join groups of individuals sharing common interests, common ground, or particular themes.

It can be concluded that Facebook is a social networking website which connects people online with various communication purposes. Users can share pictures, music, videos, and articles, as well as their own thoughts and opinions. Furthermore, it allows users to send instant messages and post status updates to keep in touch with other users. Besides, users are able to create online net-works of friends and join groups of individuals sharing common interests, common ground, or particular themes.

Advantages of YouTube and Facebook in Language Learning

YouTube and Facebook are not only social media websites which amuse the viewers, but they are also very useful and have many advantages in teaching and learning English.

Firstly, YouTube offers unlimited opportunity to expose students to varieties of English. According to Watkins and Wilkins (2011), YouTube promotes authentic vocabulary development and students can interact with native as well as non- native speakers of English. Therefore, they also learn the different dialects and varieties of English spoken around the world. This will help them get used to hearing English spoken in different ways and will make them become more confident in facing real life situation. Additionally, YouTube promotes an autonomous learning style. It is related to Alimemaj (2010), learners actively engage in their learning and teachers' role are just as facilitator. This provides chances for learners to discover knowledge by themselves without being passive learners. Besides, they can explore more interesting videos related to the topic which help them to find more information and easily understand the lesson. Furthermore, YouTube can stimulate students' attention and interest, so it makes classroom very interactive for language learning. According to Boster et al. (2002), students in the 21st century are bored of the traditional ways of learning language which they sit quietly and listen to their teachers; students do not have chances to express their ideas and thoughts. Instead they are comfortable and enjoyable learning through YouTube which help increase their attention and curiosity to learn and stimulate class discussions and achieve learning goals.

Thus, students with excitement to learn will concentrate more in their learning and will not get bored easily.

Secondly, Facebook supports learners interact and participate with each other actively in a virtual community. According to Yang and Chen (2008), Facebook leads the learning method to be changed from in-class teaching into learning outside the classroom. Students are able to exchange, interact, collaborate, and socialize with others in virtual communities.

Also, Facebook provides opportunity for students to effectively present their ideas and lead online discussions. Phillips (2010) pointed out that online discussions get students deeply engaged in their learning and feel connected to their classmates. It leads to a richer learning experience when students share their ideas, make connections, and engage in higher order thinking. Moreover, Facebook enables student- to- student collaboration and offers innovative ways for the teacher to involve students in subject matter. Similarly, Facebook is a convenient way for a group or class to share opinion and receive comments to increase students' language ability. Consequently, students obtain feedback among their friends, their peer groups, and teacher. Feedback enables students to correct their mistakes, revise their works, and improve language proficiency (Rollinson, 2005). Additionally, students feel more relaxed and free to express their ideas, opinions and feedbacks in virtual community. This allows them to say something they would probably not say face-to-face interaction (Lantolf, 2000, p.84).

In summary, YouTube and Facebook have great potentials to enhance the outcomes of language learning. YouTube offers unlimited opportunity to expose students to varieties of English. Furthermore, it promotes an autonomous learning style and stimulate students' attention and interest, so it makes classroom very interactive for language learning. Whereas Facebook supports learners interact and participate with each other actively in a virtual community. Moreover, it provides opportunity for students to effectively present their ideas and lead online discussions. Similarly, Facebook is a convenient way for a group or class to share opinion and receive comments to increase

students' language ability. Additionally, students feel more relaxed and free to express their ideas, opinions and feedbacks in virtual community.

3. Speaking

3.1 Definition

Many educators define the meaning of speaking in various ways. According to Chaney (1998), speaking is the process of making meaning by verbal and non-verbal symbols in the different contexts. The notion is supported by Bygate (1987) who stated that speaking is as the production of auditory signals to produce different verbal responses in listeners. Accordingly, Burns & Joyce (1997) reveal that the form and meaning of speaking dependent on the context in which it occurs, including the participants themselves, their collective experiences, the physical environment, and the purposes for speaking. In addition, Lado (1961) stated that speaking is one of the productive skills. The person who speaks a language can speak and think at the same time. It is a process that covers many things in addition to the pronunciation of individual sounds.

To sum up, speaking skills are productive skills which transfer information from one to others. Each speaker will think and speak at the same time. Its process can be created in verbal and non-verbal symbols which differs in each context.

3.2 The Components of Speaking Skills

According to Syakur (1999) there are four components of speaking skills which are grammar, vocabulary, pronunciation, and fluency.

The first component is grammar. According to (Purpura, (2004, grammar is a systematic way being done by a set of rules or principles that can be used to create all well-formed or grammatical utterances in the language. To be able to communicate effectively, it is essential for speakers to arrange a correct sentence in a conversation based on the speaking context.

The next essential component is vocabulary. The students are not able to communicate effectively or express their ideas, feeling and thoughts both spoken and

written form if they have insufficient vocabulary. According to Turk ((2003, without knowing an extensive vocabulary, speakers cannot reach to comprehensible communication. To succeed in speaking, students need to know meanings, spelling and pronunciation of vocabulary.

The next related component is pronunciation. It is the way for speakers to make the utterance words explicit when they are speaking. Good pronunciation and intonation can support the meaning of the speeches. Moreover, good pronunciation helps speakers to be able to communicate effectively (Kline, 2001).

The fourth component is fluency. It is the ability to speak fluently and accurately. It usually relates to express spoken language freely without interruption. According to (Brown, 1994), fluency in speaking is the aim of many language learners. Furthermore, signs of fluency consist of a reasonably speed of speaking and only a small number of pauses and “ums” or “ers”. These signs indicate that the speaker does not have to spend a lot of time searching for the language items needed to express the message.

All in all, there are four significant components in speaking process. Each component can support speakers to make the effective communication and make the listeners understand the purpose of speakers. These components are essential for the students in speaking skills. With the attempt to improve students' English speaking skills in this study, the researcher focused on two components which were pronunciation and fluency.

3.3 The Assessment of Speaking

Speaking is one of the skills in language use. Many people need to communicate to others so speaking concerns as one of the necessary skills in the era. In the language classroom, students are required to develop their speaking skills. Teachers prepare various method to develop students' speaking skills. Also, students are assessed their speaking skills.

The common purposes of assessing speaking are as follow. First, it provided the positive washback. As supported by Pitisutti (2016), washback is the phenomena from

the assessment which teachers consider the result of students' assessment. The result encourages teachers to solve the exist problem in the classroom. That is, they know the specific point that need to be improved in the class and can improve their lesson. Second, it helps teachers to improve students' speaking proficiency. According to Lee (2012), the results of an oral test could provide teachers and students diagnostic information. In each classroom, there are a lot of students who have their own individual difference and have the different capability in speaking skills. The assessment helps teachers to prepare the proper process to improve students to the point. It can be concluded that both teachers and students receive the benefits from the assessment because they know how to develop the speaking skill.

Many educators have classified the assessment of speaking skills. According to Clark (1979) there are two types of speaking assessment: direct and indirect. An indirect test evaluates the skills that are under the students' performance by bringing out performance on item types, for example, using a multiple-choice item to measure comprehension. This means that instead of measuring the oral skills directly, such tests normally include only items that assess oral skills indirectly. For example, pronunciation could be assessed by writing tests without the need for the test taker to speak. Next, a direct test evaluates speaking skills in actual performance. This method is defined as "procedure in which the examinee is asked to engage in face-to-face communicative exchanges with one or more human interlocutors" (Clark, 1979, p. 36). The interview is the classic assessment method in this group to observe students' oral proficiency. Also, a direct test helps students to elicit the speaking skills in a manner which duplicates the setting of real-life situation. The direct and indirect assessments have the different process or tools; therefore, teachers need to set the learning objective and then choose the proper method.

In addition, according to Nakamura and Valens (2001), there are three different types of speaking assessments: monologue, dialogue, and multilogue. A monologue test encourages students to do some small presentation, such as talking about the selected pictures. Next, a dialogue speaking test is known as the interview

which is an open-ended test. It provides students to discuss with the pairs. Students can employ the conversation skills that they learn in class. Last, a multilogue test, known as a discussion or a debate, encourages students to join into the group and choose the interesting topic to discuss. These three types of speaking assessments have the different process, so teachers should select the suitable types for each lesson.

To accurately assess English language learners, speaking assessment should be appropriate. According to Alberta Education (2012), students should be assessed in the proper way since each student has their own strength. The appropriate assessment calls for the use of a range of assessment strategies as students need a variety of ways to express their understanding. The appropriate assessment gives opportunities for students to show their true proficiency. In addition, it is essential to make sure that assessment tools are suitable for the appropriate developmental age of the students. Moreover, the graphics and content should be appropriate for the age of the students. More importantly, most of assessment tools are developed by native English speakers. Most of assessment tools that teachers use in the class might come from the native countries. Teachers should be careful to use it in the class. They need to read and analyze how it is suitable with the students. Some assessments can be used as a great guideline; however, teachers need to adjust it to students. In sum, to consider the speaking assessment, teachers need to focus on many factors. They need to choose the appropriate assessment in order to assess students' true potential.

3.4 Rubrics of Speaking Skills

Speaking is probably one of the most difficult skills to test. Depending on space and time, it may be difficult for teachers to assess the students' speaking skills (George, 2019). Rubrics are known as a famous tool used by teachers for an assignment, giving feedback on work in progress and grading performance. There are many educators who define the term "rubrics." According to Stiggins (2001), rubrics are used to test students' performance and clarify the standards of quality performance. Furthermore, rubrics are sets of criteria, rules or guidelines used to assess one's work (Berger, 2011). To conclude, rubrics are criteria for assessment students' performance

or work in order to help teachers grade students more objectively. Teachers need to consider the suitable types of rubric for the students.

Generally, there are two types of scoring in rubrics: holistic and analysis scoring. According to Thonbury (2008), the holistic scoring is to give the single score from the overall conclusion. This type is quick and enough for the information testing process. On the other hand, the analysis scoring is to give a separate score for different components of a task. This kind is good to analyze each component of a task, such as grammar, vocabulary, comprehension, fluency, pronunciation, and task completion. Each type helps teachers to assess or grade students' performance or work.

To sum up, scoring rubrics should be designed accurately to reflect the different characteristics of the speech samples collected during the tests. In this study, the researcher focused on two components of speaking skills which were pronunciation and fluency. Therefore, the analysis scoring was employed in this study to assess the students' speaking skills because it gave a separate score for different components of speaking skills. Consequently, the analysis scoring helped the researcher to assess students' speaking performance objectively.

4. English as a Foreign Language (EFL) Students

Many experts defined definition of EFL in term of learning and teaching language in vary aspects. According to Stern (1983), a foreign language refers to the language used outside the native country in terms of language functions, learning purposes, language environments and learning methods. The main purposes of learning a foreign language is for communicating with native speakers, tourism, and reading foreign journals. It is similar to Shu Dingfang (1994) defined EFL as learning English in non-English-speaking countries. Additionally, Iwai (2011) defined that EFL students refer to those who study English in non-English speaking countries. (E.g. Thai people who learn English in their country are EFL students). To sum up, EFL students refer to students who learn and use English as an additional language in a non-English speaking country.

There are many factors can cause difficulties for EFL learners. According to Rababa'h (2005), there are many factors that cause difficulties in speaking English among EFL learners. These factors are related to the learners themselves, the teaching strategies, and the environment. For the learners themselves, many learners lack the necessary vocabulary to get their meaning across, and consequently, they cannot keep the interaction going. Some learners also lack motivation to speak English and do not see a real need to learn or speak English. This is supported by Littlewood (1981) who claimed that the development of communicative skills can only take place if learners have the motivation and opportunity to express their own identity and relate with the people around them. In terms of teaching strategies, they do not put an emphasis on speaking, which resulted in the meagre development of this skill. Some EFL teachers still tend to use the passive strategies that focus on textbook-based grammar and translation (Maskhao, 2002; (Simpson, 2011)). Moreover, some EFL classrooms focus on teacher-centered. This is supported by Wiriyachitra (2002), who argued that in the EFL classroom, many teachers had a teacher-centered class, which provided passive learning for the students. In terms of the environment, the lack of a target language environment can be considered another problem, which of course results in a lack of involvement in real-life situations. This is supported by the study of Wanich (2014)) which found that EFL students still struggled with speaking English since they had fewer opportunities to expose themselves to the language in daily. This has been found to be one of main problems with language learning for EFL students. In conclusion, considering the above difficulties of EFL learners, it is important to employ varied teaching methods which create oral activities, desirable environment for the students, and provided opportunities to use the English language. Importantly, some oral activities should be the form of songs, rhymes, and simple stories and more conversational language to enable students to have more fun and enjoy learning to improve their speaking skills (Al-Abri, 2008)

Specifically, in this study, EFL learners were the 12th - grade students studying at Setthabut Bamphen School. They studied English as an an additional language in a non-English speaking country. They faced with the difficulties in speaking English even though

they had studied for many years because they lacked of confidence in speaking English. In addition, they were rarely exposed to English speaking environment. Also, the teaching method was the traditional atmosphere in the classroom. Consequently, the researcher chose these participants for this study to improve their English speaking skills by using DPBL.

5. Related Research

There are many previous studies conducted to study the use of PBL in many areas of language learning.

First, the research studied the effects of PBL on students' achievement. For example, Redmond (2014) investigated the effects of PBL on students' achievement in a fourth grade classroom. The participants were divided into two groups which were taught through the different methods: traditional and PBL. The data was collected by a lesson observation and a survey. The findings showed the participants who were taught through PBL gained more achievement in the lesson than non-treatment group. Moreover, the treatment group was enthusiastic during the lesson. Like the work of Bas (2011), he studied the effects of PBL on students' academic achievement and attitudes toward the English lessons of ninth-grade students. The result showed that PBL was more effective in the development of the students' academic achievement. The students taught through PBL were more successful and had a higher attitude level toward the lesson than the students taught by teaching based on textbooks. In summary, PBL had positive effects on students' achievement.

Second, many studies investigated the effects PBL on various skills of learning English. For instance, in the English language learning, Suthisawatkun (2004) investigated the use of PBL to improve the fifth grade students' English vocabulary skills. The findings showed that students' English vocabulary ability was enhanced after engaging in learning activities using PBL, especially writing and spelling. Additionally, the students increased the capacity of memorizing and using the vocabulary in sentences. Next, Piboonurak (2009) investigated the effect of PBL on the reading comprehension ability of grade-seven

students at Muangthalang School in Phuket. The findings revealed that students' reading comprehension ability significantly improved after using PBL, especially in their second reading comprehension project. Moreover, their group work in implementing the project work and the students' teamwork ability also improved. Last, Phonyangsong (2015) explored the effects of PBL on students' grammatical competence. The participant were 42 secondary school students who joined the learning activities through project-based learning for 12 weeks. The finding showed the positive effect of PBL on teaching grammar. To be concluded, the effects of PBL helped the students improve their English vocabulary skills, reading comprehension ability, and grammatical competence.

Moreover, many studies investigated the technology with Project-Based learning which provided chances students collaborate in class activities and engaged students in deeper learning. For example, Taylor (2017) studied on the best uses of technology in support of Project-Based Learning. The result showed that teachers and learners are aligned with regards to the importance of technology and the benefits of many types of tools. Tools can give a chance for learners to collaborate in the lesson and teamwork. Similarly, Valls-Barreda (2016) explored analysis of PBL in a digital environment at a networked high school. The participants were taught based on digital collaborative learning projects. The teaching approach was PBL in a digital environment. The results revealed that the positive, students-centered, collaborative learning environment which were provided were good in teaching and learning. The technology could engage students in deeper learning.

From previous studies, the findings showed that PBL can enhance students' language learning while engaging students in the learning process. Students gained the high outcomes, and they had the positive opinions toward the PBL. However, the studies on DPBL are still limited. As technology advancement, it can support students to improve their English speaking skills. Therefore, the researcher proposed to study the effect of DPBL on students' speaking skills.

CHAPTER III

METHODOLOGY

This study aims to explore the effects of the DPBL on students' English speaking skills and to investigate the students' opinions about the DPBL. This chapter presents the methodology including research design, population and participants, instruments, validity and reliability, data collection, and data analysis.

Research Design

This study relied on a triangulation method which combines quantitative and qualitative data collection. The quantitative data consisted of students' pretest and posttest scores from speaking test and scores obtained from a questionnaire. The qualitative data consisted of the open-ended section of the questionnaire and an interview. The data from the open-ended section of the questionnaire and an interview part were analyzed. Figure 4 shows the design of this study.

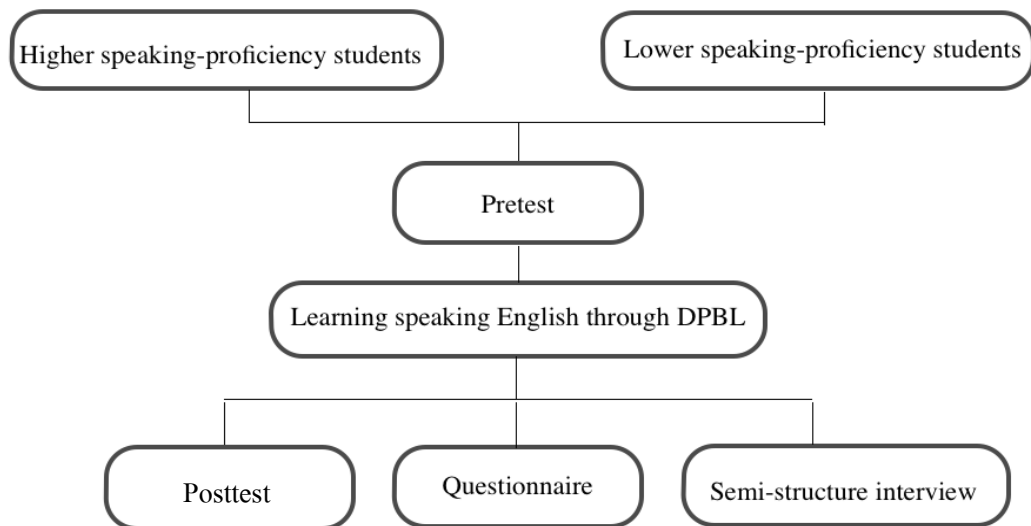


Figure 4 Research Design

Population and Participants

This experiment was conducted at Setthabut Bamphen School – a high school in Bangkok. The population were 120 twelfth-grade students studying in Language- Arts (English) Program in the second semester of the 2020 academic year. The participants of the study were 60 twelfth grade students. They were selected via simple random sampling and were divided into two experimental groups: lower speaking-proficiency students and higher speaking-proficiency students. They were grouped by the English speaking scores in the first semester of the academic year 2020. Students who received 10-14 out of 15 points were in higher speaking- proficiency group and students who received 5-9 points out of 15 points were in lower speaking- proficiency group. The participants were taught by using DPBL.

The reasons to choose these participants were: 1) according to the school curriculum, twelfth grade students are required to be able to speak English for communication at the basic level; and 2) twelfth grade students are the most appropriate academic level to prepare themselves for further English proficiency test, such as Ordinary National Education Test (O-NET), the General Attitude test (GAT), and 9 common subjects. Therefore, they were appropriate to be the participants in this study.

Research Instruments

The research instruments used to collect quantitative and qualitative data consist of lesson plans, a questionnaire, an English speaking test, a semi-structure interview, and a rubric of speaking test.

1. Lesson plans

Twelve lesson plans were designed by the researcher based on six stages of DPBL proposed by Ministry of Education Malaysia (2006). This model was chosen because the previous research of Rubrica (2018) proved that this framework helped the students improve the academic achievement, critical thinking, motivation, and collaboration. Additionally, the educational context in both Thailand and Malaysia are similar; that is, teachers and students still focused on the structure rather than speaking

or communication. Moreover, students in both countries lack opportunities to use English in their daily lives and lack responsibility for their own learning. According to Rani (2013), the reason that the Malaysian learners are poor in English language learning is that learners lack of exposure to the language as there is a limited opportunity to use English outside the classrooms. Also, in Thailand, students rarely have opportunities to use English outside of class time (Dhanasobhon, 2016). In addition, the English lessons are unchallenging, and this makes students passive learners--they sit quietly in the classroom and do not have chances to participate in the class activities. Consequently, these problems lead to the unsatisfactory results of English language teaching and learning in both countries. As shown in the EF English Proficiency Index (EF EPI), 2020, collecting data from 2.2 million adults who took the EF Standard English Test (EF SET) or EF English placement tests in 2019. The index showed data of 100 countries around the world, including 8 ASEAN Countries, except Brunei and Lao. The results showed that Thai people's speaking performance ranked the 89th from 100 countries. The score summary was 419 (out of 700) which ranked in the very low proficiency. While Malaysian people's speaking performance ranked the 65th from 100 countries. The score summary was 473 (out of 700) which ranked in the low proficiency (The Government Public Relations Department, 2020). For these reasons, this framework was suitable for Thai educational context to improve students' language competency. The stages were explained as follows:

Stage 1 The essential question: Teachers give students the open-ended question to let them in learning activities.

Stage 2 Designing a plan: Students in each group design a plan for their project whereas teacher provides them the resources and materials as well as guidance to complete their projects.

Stage 3 Creating a schedule: Students create a schedule to manage a timeline for the project components and realize that changes may occur during the process.

Stage 4 Monitoring students: Teachers guide students on learning how to succeed their project works, provide resources and materials to students and advice how to gain deeper information and knowledge.

Stage 5 Assessment: Teachers assess the projects and give students feedback on how well they understand the information and what they need to improve on their work.

Stage 6 Reflection: The students get the reflection based on their performance. They share feelings and experiences, and discuss among their groups or colleagues in the class. The details of the contents are shown in table 1. (See Appendix A)

Table 1 The details of the contents

Topics	Content	Project
Advertisement (Week 1-3)	<ul style="list-style-type: none"> - Talking about advertising - Design a logo and slogans - Make advertising posters - Present advertisement through Youtube 	We are the youtubers. (Present ads through Youtube)
Food Recipe (Week 4-6)	<ul style="list-style-type: none"> - Describing favorite food - Food ingredient lists - Make a menu card - How to use sequence and transition words 	Cooking Channel (Facebook live)

2. An English Speaking Test

The pretest and posttest of English speaking were utilized in the study to measure the students' speaking skills. The tests were designed in the form of responding to questions. Each test consisted of two parts; responding to questions and describing a favorite food. (See Appendix B)

3. A Rubric of Speaking Test

The rubric of speaking test was adapted from Cambridge (2008). Cambridge's rubric was chosen because it is easy-scoring, the criteria was not complicated, and the criteria was divided clearly. In addition, the rubric indicated the speaking performance at level A2 relating to the CEFR framework. The competency that required at level A2 in CEFR is the speakers could talk about easy context around themselves such as school, daily life, family, society etc. This requirement was in line with the expectation of the twelfth-grade learners specified in the Basic Education Core Curriculum B.E. 2551. (See Appendix C)

4. A Questionnaire

A questionnaire designed by the researcher were used to measure the students' opinions. It was divided into two parts. The first part will consisted of 10 five-point Likert items. The students were asked to respond to a series of statements using responses ranging from 1 to 5, which 1 means "strongly disagree/very poor", 2 signifies "disagree/poor", 3 indicates "not sure/fair", 4 corresponds to "agree/good", and 5 means "strongly agree/very good." The second part was the comments. The students provided the suggestions and their opinions about teaching speaking through DPBL. (See Appendix D)

5. A Semi-Structure Interview

The semi-structured interview was employed to obtain more information, apart from the questionnaire. The interviews were conducted in the students' native language (Thai) to avoid a language barrier in conveying a message. After the experiment, the researcher asked ten students to be as volunteer for interviewing. The questions were: What do you like about DPBL?, What don't you like about DPBL?, and What is your suggestions about DPBL? Does the DPBL promote your speaking skills? (See Appendix D)

Validity and Reliability

In term of validity, three experts were asked to review the instruments—lesson plans, the English speaking test, and the questionnaire to determine the validity and commented on the appropriateness of language using the evaluation form (Item-Objective Congruence Index, IOC). The first expert was a thesis advisor. The second one was an English teacher teaching 12th-grade EFL students at a school. The third expert was a British teacher teaching English to the participants of this experiment. The items with the scores higher than or equal to 0.5 were considered appropriate; those with the scores less than 0.5 were revised according to the suggestions.

To examine the reliability, three instruments were tried out with 32 students in another class who also were 12th - grade EFL students in Setthabut Bamphen School and were not the participants of this study. The data were analyzed using the reliability coefficient Cronbach's alpha. The reliability of the instruments was 0.75. Since Cronbach's alpha value was higher than 0.7, all instruments were strong enough to employed in this study

Data Collection

In this study, there were two experimental groups: lower speaking-proficiency students and higher speaking-proficiency students grouped by the English speaking scores in the first semester of the academic year 2020. In the first week, the participants were asked to sign the consent form. Then, they completed the pretest. Next, they were taught by using the DPBL for six weeks. After that, they took the posttest and completed the questionnaire to study their opinions. Then ten students were asked for the interview. The research timetable was shown in the table 2.

Table 2 Research Timetable

Month	January					February				March			
Week	1	2	3	4	5	1	2	3	4	1	2	3	4
Planning													
Validity and Reliability													
Data Collection													
- Orientation													
- Pretest													
-Teaching DPBL													
Topic 1 Advertisement													
Topic 2 Food Recipe													
- Posttest and Questionnaire													
- A Semi-Structured Interview													
Data Analysis													

Data Analysis

The data from the pretest and posttest were analyzed by comparison of mean scores, standard deviations, and *t*-test analysis. The data from the questionnaire was scored as following criteria; 0 - 0.99 = Highly negative, 1.00 – 1.99 = Negative, 2.00-2.99 = Average, 3.00-3.99 = Positive, and 4.00-4.99 = Highly positive. The data from the semi-structure interview was analyzed by the content analysis.

Ethical Consideration

All students in the study were asked for volunteering to be involved in the study. At the beginning of the study, written informed consent from all students were obtained. Students were informed the nature and purposes of the research. They understood all procedures required in the study and realized that participating in the study were not disadvantage them, but they gained benefits from participating in this study. They were assured that it was their right to withdraw at any stage of the procedure. Confidentiality and anonymity were assured as all data were kept secretly and a coding method for students' identification were employed.



CHAPTER IV

FINDINGS

This chapter presents the results of the study that aimed to explore the effects of DPBL on students' English speaking skills and to investigate the students' opinions about teaching speaking through DPBL. The data were collected both quantitatively and qualitatively. The analysis of quantitative data were collected from students' pretest and posttest scores from speaking test and scores obtained from a questionnaire. Additionally, the qualitative data were collected from the open-ended section of the questionnaire and semi-structure interview. The data from the open-ended section of the questionnaire and semi-structure interview were analyzed using content analysis.

There are two parts of this chapter. The first part is about students' speaking skills including the effects of DPBL on students' speaking skills of lower speaking-proficiency students and higher speaking-proficiency students and the comparison of the effects of DPBL on students' speaking skills of the lower speaking-proficiency students with those higher speaking-proficiency students. The second part illustrates students' opinions about learning English speaking through DPBL.

4.1 Students' Speaking Skills

To investigate the effects of DPBL on students' English speaking skills, mean scores, standard deviations, and the t-test analysis were employed to analyze the mean scores of the pre-test and post-test. The results are presented in Table 3, figure 5, figure 6, Table 4, Table 5, Table 6, Table 7, Table 8 and Table 9.

Table 3 Descriptive Data of Students' Speaking Skills.

Group	Before the Experiment		After the Experiment	
	M	SD	M	SD
Lower speaking-proficiency students	8.60	0.93	11.63	0.77
Higher speaking-proficiency students	11.60	0.62	12.93	0.94

Regarding to table 3, the mean score of lower speaking-proficiency students before the experiment was 8.60 ($SD=0.93$), and the mean score of higher speaking-proficiency students was 11.60 ($SD=0.62$). After the experiment, the mean score of lower speaking-proficiency students was 11.63 ($SD=0.77$), and the mean score of higher speaking-proficiency students was 12.93 ($SD=0.94$). The mean scores are also illustrated in figure 5.

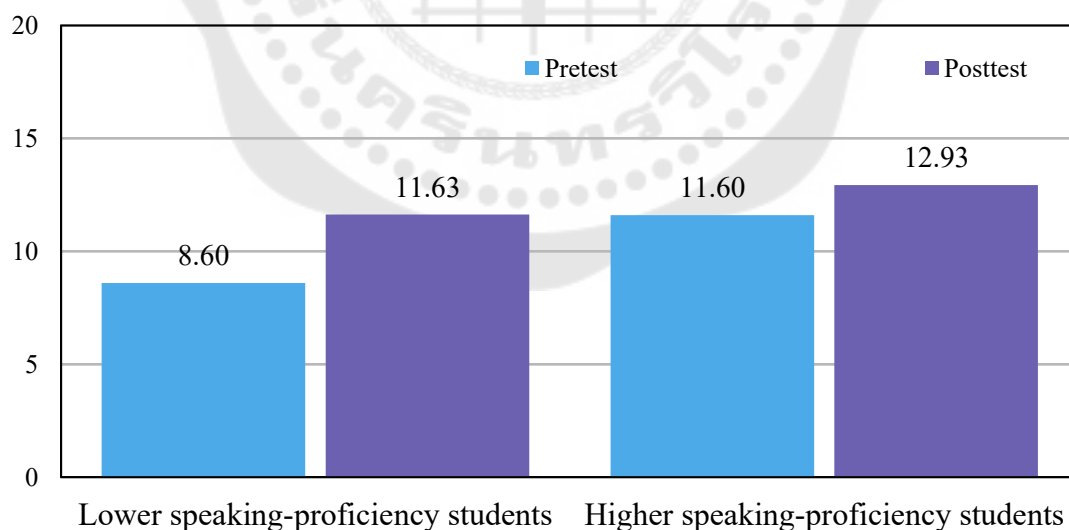


Figure 5 The Pretest Mean Score and Posttest Mean score of the Lower Speaking-Proficiency Students and Higher Speaking-Proficiency Students

In order to investigate the effects of DPBL on all participants' English speaking skills, mean scores, standard deviations, and a *t*-test analysis were utilized to analyze the data. The findings are demonstrated in Table 4.

Table 4 The Comparison of the Pretest Mean Score to Posttest Mean Score of all Participants

Time	N	Mean	Max	Min	S.D.	<i>t</i> -value	Df	p-value
Pretest	60	10.12	13	7	1.69	14.91	59	0.00**
Posttest	60	12.27	15	10	1.09			

* $p < 0.05$

Table 4 indicates that in general, the mean scores of all participants were statistically significant differences in the mean scores of pretest and posttest ($t = 14.91$, $p < .05$). The pretest mean score was 10.12 ($SD = 1.69$) while the posttest mean score was 12.27 ($SD = 1.09$). Therefore, the posttest mean score was significantly higher than the pretest mean score. The results suggest that PBL had potential in enhancing English speaking skills of all participants. The mean scores are also illustrated in figure 6.

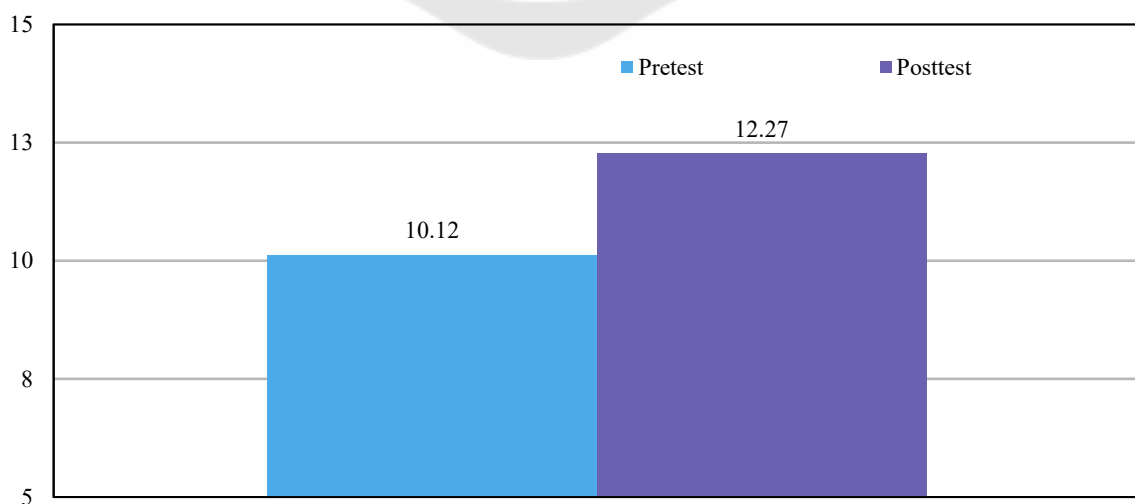


Figure 6 The Mean Scores of the Pretest and the Posttest of all Participants

4.1.1 The Effects of DPBL on Students' English Speaking Skills of Lower Speaking- Proficiency Students

To explore the effects of DPBL on students' English speaking skills of lower speaking-proficiency students, mean scores, standard deviations, and a dependent *t*-test analysis were employed to analyze the mean scores of the pre-test and post-test. The results are presented in Table 5.

Table 5 The Comparison of the Mean Scores on Pretest and Posttest of Lower Speaking-Proficiency Students

	N	M	SD	<i>t</i>	df	p-value
Pre-test	30	8.60	0.93	18.67*	29	0.000
Post-test	30	11.63	0.77			

* $p < 0.05$

Regarding to table 5, a dependent- samples *t*-test was conducted to investigate the improvement of English speaking skills of lower speaking-proficiency students. The analysis of *t*-test showed the positive effects of DPBL on students' English speaking skills of lower speaking-proficiency students. The results also showed that there were statistically significant in the pretest and post-test mean scores of lower speaking-proficiency students ($t = 18.67$, $p < 0.05$). The pre-test mean score was 8.60 ($SD = 0.93$) while the post-test mean score was 11.63 ($SD = 0.77$). Hence, the post-test mean score was significantly higher than the pretest mean score.

4.1.2 The Effects of DPBL on English Speaking Skills of Higher Speaking-Proficiency Students

To explore the effects of DPBL on English speaking skills of higher speaking-proficiency students, mean scores, standard deviations, and the dependent *t*-test analysis

were employed to analyze the mean scores of the pretest and posttest. The results are presented in Table 6.

Table 6 The Comparison of the Mean Scores on Pretest and Posttest of Higher Speaking-Proficiency Students

Time	N	M	S.D	t	df	p-value
Pre-test	30	11.60	0.62	12.04*	29	0.000
Post-test	30	12.93	0.94			

* $p < 0.05$

Regarding to Table 6, a dependent-samples *t*-test was conducted to investigate the improvement of English speaking skills of higher speaking-proficiency students. The analysis of *t*-test showed the positive effects of DPBL on students' English speaking skills of higher speaking-proficiency students. The results also showed there were statistically significant in the pretest and posttest mean score of higher speaking-proficiency students ($t = 12.04, p < 0.05$). The pretest mean score was 11.60 ($SD = 0.62$) while the posttest mean score was 12.93 ($SD = 0.94$). Hence, the posttest mean score was significantly higher than the pretest mean score.

4.1.3 The Comparison of the Effects of DPBL on Students' English Speaking Skills of Lower Speaking-Proficiency Students to Higher Speaking-Proficiency Students.

To compare mean scores between lower speaking-proficiency students to higher speaking-proficiency students, estimated marginal means were used to obtain results. The mean scores of two groups were adjusted. The adjusted and unadjusted mean scores of lower speaking-proficiency students and higher speaking-proficiency students are demonstrated in Table 7.

Table 7 Unadjusted and Covariance Adjusted Descriptive Statistic

Group	Before Treatment		After Treatment (Unadjusted)		After Treatment (Adjusted)	
	N	M	M	SD	M	SD
Lower speaking-proficiency students	30	8.63	11.63	0.77	12.54	0.22
Higher speaking-proficiency students	30	11.60	12.93	0.94	12.00	0.22

Table 8 The Analysis of Covariance of Lower-Speaking Proficiency Students and Higher-Speaking Proficiency Students

Source of Variance	SS	Df	MS	F	Sig
Before Treatment	14.37	1	14.37	28.55	0.00**
Between Groups	0.93	1	0.93	1.85	0.18
Error	28.69	57	0.50		

*p<0.05

According to table 8, the analysis of covariance was conducted to compare the effects of DPBL on English speaking skills of lower speaking-proficiency students to those of higher speaking-proficiency students. The analysis reveals that there were no statistically significant differences $F=1.85$, $p > .05$ in the mean score of lower speaking-proficiency students ($M=12.54$, $SE=.22$) and the mean score of higher speaking-proficiency students ($M=12.00$, $SE=.22$). This points out that the effects of DPBL on students' English speaking skills of lower speaking-proficiency students and higher speaking-proficiency students were similar.

In conclusion, the quantitative data analysis indicates that DPBL had positive effects on EFL English speaking skills of both lower and higher speaking- proficiency students. Therefore, it can be said that DPBL had effects on different background students.

4.2 The Students' Opinions about Learning English Speaking through DPBL

To investigate students' opinions about learning speaking through DPBL, the data were collected from the questionnaire, open-ended section in the questionnaire and semi-structured interview after the experiment.

4.2.1 A Questionnaire

The data from questionnaire were analyzed by mean scores and standard deviations. Then, the mean scores were explained into five levels from highly negative to very positive. The results are presented in Table 9.

Table 9 Opinions on Learning English Speaking through DPBL

Statements	N	M	SD	Level
1. The DPBL can improve my speaking skills.	60	4.37	0.73	Highly positive
2. I feel happy when I join the DPBL.	60	4.40	0.66	Highly positive
3. Group work process in the DPBL method leads me to speak naturally.	60	4.25	0.65	Highly positive
4. The DPBL supports my confidence when I present the project.	60	4.40	0.71	Highly positive
5. Each step of the DPBL provides more chances to speak.	60	4.35	0.68	Highly positive

Table 9 (continued)

6. The tasks in the DPBL support me to speak with other classmates.	60	4.20	0.83	Highly positive
7. DPBL motivates me to learn speaking English	60	4.30	0.76	Highly positive
8. I am confident to speak when I present my project.	60	4.45	0.69	Highly positive
9. I can transfer the knowledge from the lessons to connect with the real world of language use through DPBL.	60	4.37	0.63	Highly positive
10. DPBL supports me to use the digital technology to produce the project.	60	4.32	0.62	Highly positive
Average	60	4.34	0.70	Highly positive

According to Table 9, in general, students' opinions about learning English speaking through DPBL were highly positive ($M= 4.34$). The item of the highest scores was "I am confident to speak when I present my project." ($M= 4.45$), followed by the statement "I feel happy when I join the DPBL." and "the DPBL supports my confidence when I present the project." ($M= 4.35$). The statement "The DPBL can improve my speaking skills." and "I can transfer the knowledge from the lessons to connect with the real world of language use through DPBL." ($M=4.37$) was rated the third place and the fourth level was "Each step of the DPBL provides more chances to speak." ($M= 4.35$). These results suggest that students favored DPBL. Students thought that this teaching method provided them chances to speak, decreased their stress, increased their confidence, and then enhanced their speaking skills. Moreover, the class activities were enjoyable.

Although four items which obtained the lowest scores compared with other items, the mean scores were still highly positive. These statements were: “DPBL supports me to use the digital technology to produce the projects.” ($M= 4.32$), “DPBL motivates me to learn speaking English.” ($M= 4.30$). “Group work process in the DPBL method leads me speak naturally.” ($M= 4.25$) and “The tasks in DPBL support me to speak with other classmates.” ($M= 4.20$).

According to the mean score of the students’ opinions, the results indicated that students’ opinions about learning English speaking skills through DPBL were at a very positive level. It can be said that learning English speaking skills through DPBL had positive effects on students and they favored DPBL and thought that it helped them improve speaking skills.

Additionally, qualitative data was also collected to investigate the students’ opinions about teaching speaking through DPBL, and the results were utilized to support the effectiveness of DPBL in teaching students’ English speaking.

4.2.2 Semi-structured Interview

In this study, 10 students in the experimental groups were asked to volunteer for the semi-structure interview. There were five students from the lower speaking-proficiency group and five students from the higher speaking-proficiency group. The interviews were conducted in the students’ native language (Thai) to avoid a language barrier in conveying a message. The results of qualitative data were analyzed using content analysis. The results were as follow:

It was found that using DPBL supported students’ confidence when they speak English. All of them (100%) agreed that this teaching method provided chances for them to speak English confidently. For instance, one student said, “I am more confident to speak English with my classmates and foreign teachers.” Some students said that they can learn speaking English both inside and outside the classroom, so it helped them to practice speaking frequently and allowed them to speak confidently. One student expressed, “I am confident and willing to speak English more.” Six students (60%) said that they learned speaking through social media which helped them to become more

confident to speak English. For example, one student expressed, “I can expose to varieties of English through social media which helps me to become more confident to speak English in real life situation.” Other students added that they tried to practice speaking English by watching English pronunciation online videos from YouTube and Facebook, so they were more confident when they participated in class activities. Few students (20%) said that by enjoyable activities made them feel relaxed, and this helped to decrease their stress while speaking English. One student commented that class activities encouraged them to be more active to speak English, and they were not worried about speaking. These opinions indicated that using DPBL helped students speak English with confidence.

Additionally, DPBL motivated students to improve English pronunciation. All of students (100%) reported that this teaching method encouraged them to learn English pronunciation. For example, some students commented that they watched English pronunciation online videos in Youtube and Facebook to know how to pronounce English words correctly, so that they can learn the correct pronunciation. Some students expressed that they learnt pronunciation by doing class activities. 5 students (50%) added that their pronunciation had improved because of feedbacks and comments from their classmates and teachers. For instance, one student added, “After the projects, I received the feedbacks and comments from my classmates and teachers which helped me to know the wrong words I pronounced. Therefore, my English pronunciation had improved.

Moreover, DPBL encouraged students to speak English fluently. All students (100%) said that DPBL provided them chances to speak English more frequently and supported them to speak English fluently. For example, some students expressed that before they presented their projects, they searched for more relevant topics in Youtube and Facebook, and this supported them to have more ideas about the projects and practice speaking English over and over. By learning speaking English through Youtube and Facebook, they had chances to practice their English fluency and helped them to speak English fluently. Seven students (70%) said that by doing class activities, they had great opportunities to speak English more in which helped them to speak English fluently. For example, some students said while doing the projects, they communicated with their

group members in English, so they had great opportunities to speak English more in classroom. Therefore, their English fluency had improved.

More importantly, it was found that using DPBL motivated students to cooperate in classroom activities. All students (100%) expressed that they were very excited and enthusiastic with the class activities. For example, all students explained that they were enthusiastic to participate in class activities with their group. They also added that they needed to work together to complete their project. Six students (60%) commented that when they faced with the problem while doing the projects, they helped each other to solve the problem and helped each other to give feedbacks before presenting the projects. Some students said that their English speaking skills had improved because this teaching method made them happy with speaking activities. Two students expressed that they preferred to learn English through this teaching method because they were willing to do activities through Youtube and Facebook which allowed them to share their projects. Additionally, they could share ideas, listen to the others, and use their friends' and teacher's feedbacks and comments to improve the projects and their speaking skills. Another student commented, "I am not good at English; however, I am willing to participate in classroom activities and my friends help me to solve the problem. Consequently, my English speaking skills have improved."

Furthermore, DPBL offered technology skills. Eight interviewees (80%) responded that they used technology to improve their English speaking skills by themselves. For example, some students commented that they used technology to search for information relevant to the topic, find the answer, solve the problem and complete their projects effectively. Two students said that by using technology, they could produce the projects by using YouTube and Facebook which supported them to present their works, share ideas, give feedbacks and comments in virtual community.

In summary, students had positive opinions about improvement of their English speaking skills through DPBL. From the students' interview analysis above, they thought that DPBL promoted them to have more confidence when speaking English and supported them about pronunciation and fluency. Moreover, it offered technology skills

and motivated students to cooperate in classroom activities. Therefore, they could speak English in their daily lives with confidence.



CHAPTER V

CONCLUSION AND DISCUSSION

This chapter aims to present the summary of the study, research methodology, and the findings of the study. Furthermore, the discussion, the implications of the study, limitations, and recommendations for further studies are presented as well in this chapter.

Summary of the study

This research was experimental study using both quantitative and qualitative data collection.

The objectives of the study were as follow:

1. To explore the effects of DPBL on students' English speaking skills of students in lower speaking-proficiency group.
2. To explore the effects of DPBL on students' English speaking skills of students in higher speaking-proficiency group.
3. To compare the effects of DPBL on speaking skills of EFL students in lower speaking-proficiency group to those of higher speaking-proficiency group.
4. To investigate the students' opinions about teaching speaking through DPBL.

The participants of the study were 60 twelfth grade students studying at Setthabutbamphen School, Bangkok, Thailand, in the second semester of the 2020 academic year. They were selected via simple random sampling and were divided into two experimental groups: 30 higher speaking- proficiency students and 30 lower speaking-proficiency students. The research instruments included twelve lesson plans, an English speaking test, a semi-structure interview, and the rubric of speaking test. The quantitative data were analyzed by mean score, standard deviation, and the *t*-test analysis while the qualitative data were analyzed by content analysis.

The findings of the study were:

First, the results reveal the effectiveness of DPBL in enhancing speaking skills of EFL students in lower speaking-proficiency group. That is, posttest mean scores were significantly higher than the pre-test mean score.

Second, the results reveal the effectiveness of DPBL in enhancing speaking skills of EFL students in higher speaking-proficiency group. That is, posttest mean scores were significantly higher than the pretest mean score.

Third, the results reveal that there were no statistically significant differences in the gained speaking skills of lower speaking-proficiency students and that of the higher speaking-proficiency students. This means that DPBL had effects on different background students.

Fourth, the results reveal that in general, students' opinions about learning English speaking through DPBL were very positive. It indicates that learning speaking through the DPBL had positive effects on students' opinions of the lower speaking-proficiency group and higher speaking-proficiency group. Moreover, the results of the interviews supported the questionnaire responses, revealing that students preferred learning English speaking through DPBL. They thought that this teaching method provided them chances to speak, decreased their stress, increased their confidence, and then enhanced their speaking skills. Moreover, the class activities were enjoyable.

Discussion

According to the results of this study, DPBL was an effective teaching method to improve EFL students' speaking skills and there are many reasons to explain these results. Firstly, DPBL supported students' confidence when they speak English. Similar to the ideas of Fried-Booth (2002), PBL provides chances for students to become more independent in learning. Doing their project, students are in control of their learning: such as they are allowed to decide whom to work with, what materials or resources to use, and what to create. In other words, students take ownership of their own learning (Simpson, 2011). Consequently, they had more confidence in speaking and enhanced their learning

performance and speaking skills. As the results of this study, the post-test mean score of their speaking skills were significantly higher than the pre-test mean scores of both groups. This can be seen in the results of the questionnaire statement which received the highest level of agreement “I am confident to speak when I present my project.” ($M= 4.45$). Also, in the interview, the students commented that learning speaking through social media helped them to become more confident to speak English in real life situation. These findings are in line with the ideas of Watkins and Wilkins (2011)) which mentions that YouTube promoted authentic vocabulary development and students could interact with native as well as non- native speakers of English. Therefore, they also learned the different dialects and varieties of English spoken around the world. This helped them get used to hearing English spoken in different ways and made them become more confident in facing real life situation. It can be concluded that DPBL encouraged them to speak English confidently in their daily lives.

Secondly, this teaching method provided students chances to speak English in classroom which supported them to speak English fluently. According to Larmer and Mergendoller (2010), the important skills of PBL are communication and collaboration skills. It encourages students to work together with their group members. They need to communicate with the teacher and peers while doing their projects. Also, they work better in groups, provide their own input, listen to others, and solve problems to complete the projects. In this study, each step of DPBL allowed students chances to communicate English with their group members, classmates and teacher while doing their projects. This encouraged them to practice speaking English in classroom and led them to speak English fluently. The evidence is shown in the students’ semi structure which was reported that by doing class activities, they had great opportunities to speak English more in which helped them to speak English fluently. Also, the result of the questionnaire statement which received the fourth level of agreement “Each step of the DPBL provides more chances to speak.” ($M= 4.35$) indicates that students had more chances to speak English in classroom. Although this statement obtained the fourth level of agreement, the scores were still highly

positive. These can be proved that this teaching method support students to speak English fluently.

Thirdly, DPBL supported an autonomous learning style which facilitated students' English speaking. Students were able to learn speak English by themselves. According to Fried-Booth (2002), PBL provides chances for students to take ownership of their own learning; such as they are allowed to decide who to work with, what materials or resources to use, and what to create. In this study, DPBL allowed students to use digital technology to learn English both inside and outside classroom at their convenience. This was flexible for students to learn English speaking. This can be seen from the students' opinions which were reported that by using technology, they became more independent in learning because they could learn English both inside and outside classroom. Therefore, they had more time to learn speaking English anytime and anywhere. Similar to the ideas of Alimemaj (2010), learners actively engage in their learning and teachers' role are just as facilitator. Therefore, this teaching method was helpful and efficient for students using digital technology to learn English speaking by themselves and supported an autonomous learning style of the various backgrounds of the students.

Fourthly, this study found that students favored the learning through DPBL. It stimulated students' motivation in learning. According to Jalaluddin (2016), with the various kind of videos in YouTube, they made a great contribution to supply and maintain the motivation and engagement of learners. In this study, students used Facebook and YouTube as learning tools to learn English speaking skills, produce the group works and present the projects. These increased students' motivation and engaged students to be active in learning, so this teaching method made classroom very interactive for language learning. This can be seen in the result of the questionnaire statement "DPBL motivates me to learn speaking English." ($M= 4.30$) in which the scores were highly positive level. These findings were in line with the research of Somdee and Suppasetseree (2012), which found that students were more motivated to practice English speaking skills when they used digital storytelling through websites, and had positive attitudes toward learning activities. Similarly, Miller et al (2012) found that students were very enthusiastic about exploring and

practicing English skills by using a digital video project. Moreover, DPBL motivated students to participate in class activities. Students were willing to participate in class activities with their group actively to complete their projects. Similar to the ideas of Larmer and Mergendoller (2010), through group works, students need to work together which encourages them to collaborate with their group members. In this study, they participated in class activities with their group members actively and willingly. They also used their electronic devices to search for more information relevant to the topic and helped each other to solve the problem and complete the projects. This can be seen from the interview statements, such as “I am not good at English; however, I am willing to participate in classroom activities and my friends help me to solve the problem. Consequently, my English speaking skills have improved.”. These findings are in line with the research of Valls-Barreda (2016), which found that using PBL in a digital environment could improve students’ collaborative learning environment which were good in teaching and learning. Therefore, these evidences can be proved that this teaching promoted students motivation to learn English speaking skills and led them to their English speaking achievement.

Additionally, this study found that this teaching method offered technology skills which supported students to become successful in the 21st century. During the class activities, technology provided more options for students to enhance their projects and gave them the knowledge of how to acquire the knowledge they needed. According to Stiver (2010), technology supports classroom instruction by creating chances for students to search for information, find the answer, solve the problem and succeed their projects efficiently. In this study, during the project, the students used devices such as computers, mobile phone, tablet and social media networks to search for more information relevant to their topic for improving their English speaking skills both inside and outside the classroom. Also, they produced the projects by using YouTube and Facebook which supported them to present their works, share ideas, give feedbacks and comments in virtual community. Similar to the ideas of Jansa-ard (2018), by using technology, people can get the benefits in terms of communication, working, and teamwork. This can be seen in the result of the questionnaire statement in which the scores were at the highly positive level “DPBL

supports me to use the digital technology to produce the project.” ($M= 4.32$). Also, it can be proved from the students’ interview which students commented that they could use technology to find the answer relevant to the topic, solve the problem and complete their projects effectively. These findings were in line with the research of Taylor (2017), which found that the best uses of technology in support of Project-Based Learning supported teachers and learners are aligned with regards to the importance of technology and the benefits of many types of tools.

Although DPBL provided students with many advantages, there were some challenging problems while implementing this teaching method into the classroom. First, time limitation was one challenge during the process. In this study, students required more time to produce their projects effectively, and teacher had to spend much time to help and train students in the learning process because of its complexity. Because of the time limitation, students faced difficulty with time management in completing their projects, so they could not submit their final project on time and some of their projects were not effective. According to Gulbahar and Tinmaz (2006), as PBL takes more time than the traditional teaching method, the duration of the class is essential for teachers to cover the curriculum plans and for students to complete an effective project. Moreover, some students’ motivation decreased overtime because of their differences in learning abilities. In this study, students were divided into groups to participate in the class activities. In each group, there were different background students; lower speaking-proficiency students, moderate speaking- proficiency students and higher speaking- proficiency students. Consequently, there were also the possibilities of interpersonal problems between students during collaborative work. Similar to the idea of Lípová (2008), while doing the group work, all students were not at the same level of English and they had differences in learning abilities, the teacher needed to dedicate more time for the slower or less confident students to encourage them to enhance their English speaking skills.

In conclusion, this study confirms the advantages of using DPBL in learning English speaking skills. That is, this teaching method provided several advantages for students. Firstly, it supported students’ confidence when they speak English. Secondly, it

provided students chances to speak English in classroom which supported them to speak English fluently. Thirdly, it supported an autonomous learning style which facilitated students' English speaking. Fourthly, it motivated students to participate in class activities. Lastly, it offered technology skills which supported students to become successful in the 21st century. However, there were some problems occurred while using this teaching method which were time limitation and the decrease of students' motivation. In summary, DPBL could be introduced as an alternative teaching method to assist students' English speaking and learning in the classroom and to enhance the English teaching of teachers.

Implications of the Study

This study confirmed that using DPBL can be a good teaching method to enhance the students' English speaking skills. It helped speaking learning process easier and more interesting. This study showed that DPBL benefits for not only academic purposes, but also motivational purposes such as it supported students' confidence when speaking and autonomous learning style, and motivated students to participate in class activities. Consequently, the result of this study might be helpful for teachers or educators to apply this effective teaching method for teaching English speaking in the classroom. Moreover, the study could be used to enhance a curriculum in order to improve students' language competency as 21st Century skills. The results of this study found that DPBL allowed students to develop their English speaking skills, It may be helpful for teachers or educators who would like to apply the knowledge in the field of learning. First, it would be interesting to use DPBL to teach other language skills, for example, reading, writing, speaking, and listening. Additionally, using a various class activities will enhance students' learning.

Limitations of the Study

This study was restricted to the 12th grade students at a government secondary school, which was a very specific group of students. Consequently, the results might not be a representative of students in other groups of students in different context. Additionally,

this study aimed to explore the effectiveness of teaching English speaking through the DPBL in enhancing students' speaking skills of lower speaking-proficiency group to those higher speaking- proficiency group. Hence, the findings in this study might not be generalizable for teaching English speaking in other aspects.

Recommendations for Further Studies

Even though the results of this study confirmed the positive effects of teaching English speaking through DPBL on the students' speaking skills, further studies need to expand knowledge in the field of learning. Firstly, this study aimed to investigate the effects of the DPBL students' speaking skills. It would be interesting to use DPBL to teach other language skills, such as listening, reading, and writing. Secondly, this study was conducted to investigate the effects of DPBL on students' speaking skills in the 12th grade students' speaking skills. Therefore, it will be interesting to investigate the effects of this teaching method on students in other level. Finally, the experiment in this study lasted only eight weeks. It will be interesting to extend more the experiment over a longer period of time and more variety of digital technology. By using varied materials in classrooms will enhance students' learning. For this reason, it also will be interesting to investigate the effects of variety of digital technology integrated in enhancing speaking skills and language skills for students.



APPENDICES



APPENDIX A

A Sample of Lesson Plans

Lesson Plan

Subject: English for Presentation (EN 33204)
Topic: Food Recipe

Level: Grade 12
Time: 6 hours

Terminal Objectives: By the end of the lesson, learners will be able to use language about cooking and sequence words to demonstrate how to cook.

Enabling Objectives: By the end of the lesson, learners will be able to:

1. describe their favorite food.
2. create a menu card by using electronic devices.
3. use cooking verbs to demonstrate how to cook.
4. use the sequence words to correct order the steps in a recipe.
5. use demonstrate how to cook via Facebook Live.

Content:

Vocabulary: Cooking verbs; grate, grill, melt, pour, serve, pinch, scramble, slice, taste, add, bake, blend, boil, chop, cut, and fry

Structure: Sequence words; first, to start, first of all, after that, next, then , later, at last, lastly, in the end

Materials:

1. Worksheet 1 How to Cook Pancakes
2. Website <https://www.youtube.com/watch?v=ayIuoNCaD7I>
<https://www.youtube.com/watch?v=PaGQpj99lmc>
3. Power Point: Your Favorite Food

Procedures:

Stage 1 Essential Question (1 hour)

(Teachers give students an essential question or interesting topic.

Period 1

- Teacher shows pictures about her favorite foods through power point presentation and tells students “Spicy Papaya Salad or Som Tom” is the most favorite dish.

- Teacher asks students “Do you like it?,” “Why do you like it?” and “Why don’t you like it?”

- Teacher encourages students to answer the questions.

- Teacher shows the video “How to cook Som Tom” which is cooked by teachers.

This helps them to be more interested in the lesson and help them to think about their recipe.

- After watching the video, teacher randomly asks the students the essential questions as follow:

“What is your favorite recipe?”

“Why do you like it?”

“Can you cook it??

- Teacher divides students into group of 5 and tells them that “You are going to create the cooking channel on Facebook live and create a menu card.

(Facebook was created by the teacher at the beginning of the semester, and every students have already joined it.)

- Teacher tells students the criteria for evaluating the projects as follow:

1. 5 points from another group to evaluate the taste and appearance of the food.

2.5 points from another group to evaluate the content of the project.

3.5 points from the teacher to evaluate the overall projects including the cooperation among groups, the steps of cooking and using the target vocabulary.

4.5 points from a teacher to evaluate their English speaking skills (individually)

Stage 2. Designing a Plan

(1 hour)

(Students in each group design a plan for their project whereas teacher provides them the resources and materials as well as guidance to complete their projects.)

Period 2

(Teacher provides Students the resources and materials as well as guidance to complete their projects.)

- Teacher distributes worksheet 1 “How to Cook Pancakes” (Appendix A) to students.
- Teacher lets students watch how to make Pancakes via www.youtube.com and let them rearrange the steps of cooking, the ingredients and utensils.
- Teacher checks the answer and randomly asks students to read the steps of cooking Pancakes.
- Teacher lets students watch “The Cooking Verbs” via <https://www.youtube.com/watch?v=4YB-y4hakN8> and lets them take a note in their notebook. If they do not know the meaning, they can use the mobile phone to search for the meaning.

- Teacher lets students match the pictures with the cooking verbs through PowerPoint.
- Teacher shows the transition words through PowerPoint and let them tell the importance of these words.

(Students in each group design a plan for their project.)

- Teacher tells students to sit with their groups and discuss about their project in which students will write a recipe, prepare the dish for their classmates, create the cooking channel on Facebook live and collaboratively create a menu card.
- Teacher distributes A4 papers for each group to write the draft of the recipe and create a menu card , and lets them use the Internet to search for the information.
- Teacher has the students use electronic devices to create the menu card, and the due date will be next time.
- Students divide their responsibilities among their groups and brainstorm how to make their cooking channel interesting and create a draft of a menu card by using Internet to search for the information.

3. Creating a Schedule

(Students create a schedule to manage a timeline for the project components and realize that changes may occur during the process.)

- Students draw a slot to know their presentation schedule.
- Students working in their group create a schedule to manage a timeline for their projects and divide their responsibilities among their groups.

4. Monitoring Students**(1 hour)**

(Teachers facilitate students how to succeed in their project works, provide resources and materials to students and advise how to gain deeper information and knowledge.)

Period 3

- Teacher monitors students and provides students with needed sources, materials, encouragement and support.
- Teacher circulates around class checking project progress and reminding them of useful concepts or information.
- Teacher helps students rehearse oral presentation.
- Teacher tells the students to bring the food's ingredients to the class next time.

5. Assessment**2 hours**

(Teachers and students assess the projects and give them feedback on how well they understand the information and what they need to improve on their work.)

Period 4-5

Students present their projects.

They prepare the phone camera to record Facebook live.

They demonstrate their cooking.

- Teacher and students in other groups watch the presentation and evaluate the projects. While each group is giving a presentation, teacher has students in other groups comment on live video and share video. After presentation, each group can check their friends' feed back and reaction on Facebook live video.

- After presentation, teacher collects the score from each group, lets them know their score of their projects, gives them feedback on how well they perform their English speaking skills and what they need to improve on their works.

6. Reflection

1 hour

(The students get the reflection based on their performance. They share feelings and experiences, and discuss among their groups or colleagues in the class.)

Period 6

- Teacher gives students 10 minutes to receive the reflection based on their performance, share feelings and experiences among their groups, and also discuss what works well and what needs change.

- Each group share feelings and experiences about doing their projects in front of the class.

Name: _____ Class: _____ No: _____



Exercise 1

Directions: Students watch how to cook Pancakes via www.youtube.com and write the utensils and ingredients.

<http://www.youtube.com/watch?v=PnCVZozHTG8>

Worksheet 1: How to Cook Pancakes

Utensils

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Ingredients

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Exercise 2

take / put / break / add (x3) / mix / cook / use

Directions: Put the cooking verbs in the blank

and _____ ½ litre of milk into the bowl.

After that, _____ some yeast to the flour,

Finally, _____ the pancakes in a frying pan.

To start, _____ a big bowl

Next, _____ 250 grams of flour into the bowl.

Then, _____ 4 eggs into the bowl,

Next, _____ some butter to cook the pancakes.

and _____ a pinch of salt.

Later, _____ with a whisk.

Exercise 3

Directions: Rearrange how to cook Pancakes.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

Presentation Evaluation (For students)

Directions: Rate the presentation in the following aspects:

Group: _____ **Rater:** _____ **Date:** _____

Criteria	5 Excellent	4 good	3 fair	2 poor	1 very poor
1. Food's taste and appearance - Good taste - Visual attractiveness					
2. Project's content - Attractive - Easy to understand					

Total score: _____

Comments

Presentation Evaluation (For teacher)

Directions: Rate the presentation in the following aspects:

Group: _____ **Rater:** _____ **Date:** _____

Criteria	5 Excellent	4 good	3 fair	2 poor	1 very poor
1. Group work - Well prepared - Cooperative					
2. Speaking skills - Clear pronunciation - Fluently Student 1: _____ Student 2: _____ Student 3: _____ Student 4: _____ Student 5: _____					

Total score: Student 1: _____

Student 2: _____

Student 3: _____

Student 4: _____

Student 5: _____

Comments



APPENDIX B

The Speaking Test

The English Speaking Test

The test consists of 2 parts: responding to questions and describing a favorite food. The test lasts approximately 15 minutes.

TIP >> When answering a yes/no question - answer, give your reasons for your answer. You must extend your answer to gain more marks.

Part 1: Responding to questions (10 minutes)

Directions: Answer three questions and respond immediately after you hear each question.

Situation: If you are applying for a job about advertisement, the interviewer may ask you these following questions.

Question 1: What is the purpose of advertisements?

Question 2: Why do you think there are so many advertisements now?

Question 3: Can you tell me how to persuade the customers to buy your product?

Part 2: Describing your favorite food (5 minutes)

Directions: Describe your favorite food by using the given questions as a guideline.

Situation: If you are studying abroad, and your teacher ask you about your favorite food, what would you say about your favorite food?

Question 1: What is the most popular food in your country?

Question 2: What is your favorite food? Why do you like it?

Question 3: Do you know how to cook your favorite food?

APPENDIX C

Speaking Assessment



A Rubric of Speaking Assessment

It was adapted from Cambridge, 2008.

Points	Pronunciation	Interactive Communication (Fluency)
3	<ul style="list-style-type: none"> Is mostly intelligible, and has some control of phonological features at both utterance and word levels 	<ul style="list-style-type: none"> Maintain simple exchanges Requires very little prompting and support
2	<ul style="list-style-type: none"> Is mostly intelligible, despite limited control of phonological features. 	<ul style="list-style-type: none"> Maintain simple exchanges, despite some difficulty. Requires prompting and support.
1	<ul style="list-style-type: none"> Has very limited control of phonological features and is often unintelligible 	<ul style="list-style-type: none"> Has considerable difficulty maintaining simple exchanges. Requires additional prompting and support.

APPENDIX D**A Questionnaire**

QUESTIONNAIRE

Directions: Please rate how strongly you agree or disagree with each of the following statements by placing a check mark in the appropriate box.

	Statements	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
1	The DPBL can improve my speaking skills.					
2	I feel happy when I join the DPBL.					
3	Group work process in the DPBL method leads me speak naturally.					
4	The DPBL supports my confidence when I present the presentation.					
5	Each step of the DPBL provides more chances to speak.					
6	The tasks in the DBPL support me to speak with other classmates.					
7	DPBL motivates me to learn speaking English					
8	I am confident to speak when I present my project.					
9	I can transfer the knowledge from the lessons to connect with the real world of language use through DPBL.					
10	DPBL supports me to use the electronic device to produce the project.					

Suggestions and comments

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REFERENCES

- Almurashi, W. A. (2016). The Effective Use of YouTube Videos for Teaching English Language in Classrooms as Supplementary Material at Taibah University In Alula. *International Journal of English Language and Linguistics Research*, 4(3), 32-47.
- Ananiadou, S., McNaught, J., & Thompson., P. (2011). The English language in the digital age. Retrieved from <http://www.meta-net.eu/whitepapers/e-book/english.pdf>.
- Anuyahong, B. (2015). Using project –based approach to enhance English speaking ability of ThaiNichi Institute of Technology students. Retrieved from <http://cgel.tni.ac.th/2015/upload/files/BUNDIT%20ICLEP%202015.pdf>.
- Bas, G. (2011). Investigating the effects of project-based learning on students' academic achievement and attitudes towards English lesson. *The Online Journal of New Horizons in Education*, 1(4), 1–15.
- Berger, J. (2011). Evaluating the effectiveness of instruction using principles of adult learning, in Wang V. C. (ed). *Assessing and evaluating adult learning in career and technical education*, 173-190.
- Boster, F. J., Meyer, G. S., Roberto, A. J., & Inge, C. C. (2002). A report on the effect of the unitedstreaming application on educational performance. Retrieved August 13, 2020, from Technical Report. http://www.unitedstreaming.com/home/pdf/la_summary.pdf
- Brown, H. D. (1994). *Principle of language learning and teaching*. Englewood Cliffs, NJ: Pentice Hall.
- Clark, J. L. D. (1979). *Direct versus semi-direct tests of speaking proficiency*. In I. E. J. B. F. B. H. (Eds) (Ed.), *Concepts in language testing: Some recent studies* (pp. 35–49).
- Earle, R. S. (2002). The integration of instructional technology into public education: Promises and challenges. *ET Magazine*, 42(1), 5-13.

- Fragoulis, I. (2009). Project-Based Learning in the teaching of English as A Foreign Language in Greek Primary Schools: From Theory to Practice. *English Language Teaching*, 2(3), 113-119.
- Fried-Booth, D., L. (2002). *Project work (2nd ed.)*. New York: Oxford University Press.
- Iwai, Y. (2011). The Effects of Metacognitive Reading Strategies: Pedagogical Implications for EFL /ESL Teachers. *The Reading Matrix*, 11(2), 150-159.
- Jindathai, S. (2015). *Factors affecting English speaking problems among engineering students at Thai-Nichi Institute of Technology*. (Unpublished theses). Bangkok, Thailand.
- Khalid, A. (2012). The Use of YouTube in teaching English Literature: The case of Al-Majma'ah Community College, Al-Majma'ah University (Case Study). *International Journal of Linguistics* 2012, 4(4). doi:10.5296/ijl.v5i4.2930.
- Lantolf, J. (2000). *Sociocultural Theory and Second Language Learning*.
- Latha, B. M., & Ramesh, P. (2012). Teaching English as a second language: Factors affecting learning Speaking Skills. *International Journal of Engineering Research & Technology*, 1(7), 1-6.
- Littlewood, W. (1981). *Communicative language teaching*. Cambridge: Cambridge University Press.
- Moir, S. 2010. Social Media Marketing Business Advantages of Facebook vs. Twitter Part 4. Retrieved August 13, 2020, from <http://www.releasenews.com/index.php/business/2864-social-media-marketingbusinessadvantages-of-facebook-vstwitter-part-4.html>.
- Pardo, A. (2013). Social learning graphs: Combining social network graphs and analytics to represent learning experiences. *International Journal Social Media and Interactive Learning Environments*, 11(1), 43–58.
- Purpura, J. E. (2004). *Assessing grammar*. Cambridge: Cambridge University Press. .
- Rababa'h, G. (2005). Communication problems facing Arab Learners of English *Journal of Language and learning*, 3(1), 1704-4983.

- Rani, D. (2013). *English Language in Malaysian Education System: Its Existence and Implication*. Paper presented at the 3rd Malaysian Postgraduate Conference, Australia.
- Rollinson, P. (2005). Using peer feedback in the ESL writing class. *ELT journal*, 59(1), 23-30.
- Shu, D. (1994). *Language culture foreign language teaching*. Beijing: Teaching and Research Press.
- Simpson, J. (2011). *Integrating project-based learning in an English language tourism classroom in a Thai university institution*. Published Doctoral Dissertation, The Australian Catholic University, Queensland, Australia.
- Somdee, M., & Suppasetsee, S. (2012). *Developing English Speaking Skills of Thai Undergraduate Students by Digital Storytelling through Websites*.
- Stern, H. H. (1983). *Fundamental concepts of language teaching*: Oxford : Oxford University Press
- Stivers, J. (2010). *The Project-Based Learning*. Retrieved April 30, 2019, from http://www.fsmilitary.org/pdf/Project_Based_Learning.pdf.
- Stoller, F. (2006). *Establishing a theoretical foundation for project-based learning in second and foreign language contexts*. In G. In Beckett, H. & P. C.
- Syakur. (1999). *Language Testing and Evaluation*. Surakarta: UNS Press.
- The Government Public Relations Department. (2020). *English Proficiency in ASEAN*. ASEAN Information Center. Retrieved August 23, 2020, from http://www.asean thai.net/english/mobile_detail.php?cid=14&nid=3681.
- Turk, C. (2003). *Effective speaking: Communicating in Speech*. London: Spon Press.
- Wanich, W. (2014). The relationship between the CLT approach and Thai EFL students' attitudes and motivation in learning speaking. *LEARN Journal: Language Education and Acquisition Research Network*, 7(1), 106-124.
- Wanthanasut, L. (2008). *The problems of English speaking of Mattayom Suksa 1 students at Phasi Pittayakarn School, Ubonratchathani Educational Service Area 2*.

(Unpublished master's thesis). Ubonratchathani Rajabhat University,
Ubonratchathani, Thailand.

Wilkins. (2011). *Using YouTube in the EFL Classroom*. Kwansei Gakuin University, Japan.

Wiriyaচিত্র, A. (2002). English language teaching and learning in Thailand in this decade.
Thai TESOL Focus, 15(1), 4-9.



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