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มัธยมศึกษา: ความคิดเห็นจากผู้เรียนและผู้สอน
PROJECT-BASED LEARNING (PBL) IN EFL CLASSES OF AN ENGLISH PROGRAM
AT A THAI SECONDARY SCHOOL: STUDENTS' AND TEACHERS' OPINIONS

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Abstract

This research aimed to study students' and teachers' opinions towards the implementation of project-based learning (PBL) in English classes. It also aimed to ascertain the problems and difficulties that students and teachers faced and how they coped with the challenges. One hundred and eight English program students in Matthayom 6 (Grade 12) at a secondary school responded to a questionnaire and ten were interviewed, while five English teachers responded to the questionnaire and participated in the interviews. The findings revealed that teachers agreed with the idea of implementing PBL in English classes with a higher mean score than students, and they viewed specific items differently. Regarding the problems and difficulties they encountered, students strongly indicated that the time given for projects was generally insufficient, and there were problems working in groups. The teachers opined that they had to sacrifice their free time to counsel the students on their projects, and it was difficult to give fair assessments for individual students as they were working in groups. Solutions and suggestions were proposed by both students and teachers. The study is beneficial to EFL educators in terms of finding ways to deal with challenges appropriately in implementing project-based learning.

Keywords: project-based learning, 21st century skills, project work, English teaching approach, opinions

บทคัดย่อ

การศึกษาค้นคว้าครั้งนี้มีวัตถุประสงค์เพื่อศึกษาความคิดเห็นจากผู้เรียนและผู้สอนต่อการใช้โครงการในการเรียนการสอนภาษาอังกฤษ ในหลักสูตรภาษาอังกฤษระดับมัธยมศึกษา รวมทั้งศึกษาและวิเคราะห์ปัญหาและอุปสรรคที่ผู้เรียนและผู้สอนประสบ นอกจากนี้ผู้เรียนและผู้สอนยังได้เสนอคำแนะนำ และข้อเสนอแนะในการแก้ปัญหาต่างๆ ผู้วิจัยทำการศึกษาโดยใช้แบบสอบถามและการสัมภาษณ์ การศึกษาค้นคว้าครั้งนี้จะเป็นประโยชน์ในการปรับปรุง พัฒนา และแก้ไขปัญหาที่เหมาะสมในการเรียนการสอนภาษาอังกฤษแบบใช้โครงการ

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Introduction

As a result of the rapid growth of English education worldwide, the Ministry of Education of Thailand has attempted to enhance the quality of the teaching and learning of English so that Thailand can maintain a competitive position in the world community (Chaichompoo, 2013; Ministry of Education, 2014).

One of the educational strategies in accordance with the 1999 National Education Act and the 2001 Curriculum Standards for Foreign Language Learning (ONEC, 1999; Ministry of Education, 2001) is the introduction of English programs as an alternative program of study in schools at the primary and secondary level. English programs are increasingly gaining popularity among students and parents owing to their recognition of the importance of English and their high expectation that an English program will equip students with a satisfactory level of English proficiency and consequently prepare them for a successful future (Darasawang, 2007).

There are increasing numbers of public schools offering English programs at the secondary level across the nation. English is used as the medium of instruction and a minimum of 18 hours a week is required for teaching and learning subjects in English according to the curricula (ONEC, 2000). Yothinburana School, located in Bangkok, is a leading school that offers an English program for the secondary level of education. It was selected for this study due to its aims to “develop a superior competency in the use of English for communication” (Yothinburana School, 2018). In order to comply with education policy and to provide a change from the traditional teacher-centered approach to the student-centered approach or communicative language teaching (CLT), Yothinburana School has incorporated project-based learning (PBL) into every EFL class, as the approach is considered to be beneficial for English language learning, and the students can integrate their language skills acquired from using PBL with other content subjects taught in English and ultimately be prepared for the 21st century skills.

PBL is a systematic approach rooted in the theory of social constructivism of Vygotsky (1978), the democratic learning of Freire (1983) and the experiential learning concepts of Kolb (1984) and has become one of the most popular approaches among EFL teachers. PBL is a student-centered approach involving students in autonomous activities over a period of time resulting in a realistic product, presentation or performance (Moursund, 2007). If implemented appropriately, the PBL approach can effectively solve the problems of inefficiency in English language teaching and learning. PBL provides a wide range of benefits. It gives learners the opportunity to successfully develop other skills, such as thinking skills and cooperative skills (Fried-Booth, 2002); and it has a positive effect on the motivation of learners compared with the traditional teacher-centered approach (Barttscher, Gould, & Nutter 1995; Blumenfeld et al., 1991; Elam & Nebisit, 2012). Zhou (2012) and Taddei (2013) also pointed out that PBL promotes learners' creativity and the habit of lifelong learning.

Marx, Blumenfeld, Krajeik, and Soloway (1997) and Belland, Ertner, and Simons (2006) asserted the benefit of PBL in increasing the student's ability to work collaboratively, resulting in the learner's development of social skills and empathy for others on a team. In addition, PBL creates learner's enjoyment and increases their positive attitudes (Bas & Beyhan, 2010; Gultekin, 2005). In addition, Bell (2010) stated that undertaking PBL helps prepare students for the 21st century skills which are critical thinking, communication, collaboration and creativity, as the skills promote autonomous learning, collaborative work, using creativity and presenting their knowledge to others.

PBL has been incorporated into every EFL class at Yothinburana School. The EFL courses at the school consist of three main subjects: listening and speaking, reading and writing, and English structure. An example of the project work in the listening and speaking class is the "news reporting project." There, students work in groups to find stories from the happenings around the school and create news stories, and the students make a video recording and present the news to the class taking the professional role of a news reporter. One of the projects in the reading and writing class is "My Fable Book," where the students work individually writing a 10-15 page fable by making themselves one of the characters in the story. They create the story, design the book and exchange their book with other friends to read and give comments before submitting it to the teachers. Another example in the English structure class is "The Grammar Song," where students in groups choose a song for their mini-concert; they need to find the grammar points and present English grammar they choose from the song lyrics to the class. In this way, the students learn both English language and other essential skills. The projects are assessed by teachers and sometimes by both teachers and peers. The implementation of PBL at Yothinburana School follows the four steps of procedures proposed by Stoller (1997) and Markham et al. (2003) which are starting the projects, developing the projects, reporting the project, and assessing the project.

Despite the positive benefits, PBL implementation has some challenges concerning time and resource constraints (Grant, 2002; Stauffacher, Walter, Lang, Wiek & Scholz, 2006), problems with group work and classroom disorder (Blumenfeld et al., 1991; Frank, Lavy & Elata, 2003; Grant, 2002), difficulty with incorporating technology into the project (Marx et al., 1997), the challenge of the attitudes and beliefs of teachers and learners as PBL can create anxiety and resistance for teachers and pressure for students to adapt themselves to an unfamiliar student-centered approach (Frank & Brazilai, 2006; Grant, 2002; Green, 1998; Nation, 2008), problems with assessment and the design of authentic assessment (Blumenfeld et al., 1991; Marx et al., 1997), and the challenge of demanding workloads for both students and teachers (Stauffacher et al., 2006).

After reviewing the nature on PBL, its benefits and challenges, the researcher, as an English teacher, had an interest in investigating various aspects of incorporating PBL into EFL classes in an English program at the secondary school level. The study will shed more light

for teachers interested in implementing the PBL approach. Being informed of the students' and teachers' opinions and some of the problems connected with PBL will be beneficial to educators for designing and initiating projects and for making informed decisions in choosing an approach appropriate to certain contexts. For these reasons, the following research objectives were formulated.

Research objectives

1. To study the students' and teachers' opinions of the implementation of PBL of M.6 English class students in the English program at Yothinburana School
2. To ascertain the problems and difficulties that the students and teachers face when using PBL in English classes
3. To find out how the students and teachers cope with the challenges

Research method

1. Participants: Two groups of participants were selected by convenience sampling.

1.1 The students were in Matthayom 6 (Grade 12) in an English program at Yothinburana School. The total number was 108, consisting of 58 females and 50 males, aged 17-18. They were from five classes and their majors were science and mathematics, English and mathematics, and English and Japanese or Chinese. Two from each class volunteered to be interviewed.

1.2 Five English teachers, three females and two males, responded to the questionnaire and the interview. They were aged between 20 and 40, with 0-15 years of experience as an EFL teacher. Three teachers were bachelor' degree holders and two had a doctoral degree. Two teachers speak Thai, one speaks English, and the other two speak Filipino as their native languages.

2. Research instruments

Two types of instruments were used: a questionnaire and a semi-structured interview which were developed by the researcher.

In order to ensure research content validity, the instruments were created, validated, revised, and tried out before administering them. IOC (Item Objective Congruence) indices were used to improve the questionnaire and the interview questions in order to eliminate irrelevant and insignificant words, terms, and questions. The Cronbach's alpha for the overall questionnaire was .77. The result helps to establish the questionnaire as a reliable instrument. Consents from all the participants and their parents or guardians were obtained for the ethics of the study as suggested by Yin (2014). The anonymity of the participants was also confirmed, and their participation was totally voluntary.

3. Data analysis

The questionnaire results were analyzed with the mean range interpretation as follows: 4.50-5.00 = very high, 3.50-4.49 = high, 2.50-3.49 = moderate, 1.50-2.49 = low, 1.00-1.49 = very low (Best & Kahn, 1986). The interview results were categorized according to content analysis.

Research results

1. Quantitative data

The two parts of the results were in response to the first two research objectives. Regarding the first part, the students' and teachers' opinions towards PBL, are presented in Table 1 and Table 2.

Table 1: Students' Opinions towards PBL

After undertaking PBL in my English class I have found that (n = 108)	\bar{X}	SD	Level of agreement
1. the projects create a fun learning atmosphere.	3.79	0.83	high
2. the projects motivate me to learn actively.	3.65	0.75	high
3. I am the center of the learning, not the teacher.	3.32	0.92	moderate
4. project-based learning makes me become a self-directed or autonomous learner.	3.70	0.74	high
5. I use a lot of creativity while working on the projects.	3.91	0.79	high
6. the projects make me think more logically and critically.	3.84	0.78	high
7. the projects make me develop problem-solving skills.	3.99	0.84	high
8. doing the projects helps me learn resource management.	3.73	0.94	high
9. I have freedom to choose to do projects of my interest.	3.15	1.21	moderate
10. I can integrate language and content.	3.62	0.70	high
11. project work reflects on both process and product.	3.78	0.83	high
12. I can use integrated 21 st century skills in doing projects (e.g. language, content, technology, communication skills).	3.90	0.76	high
13. project work gives me opportunities to experience real-life tasks outside the classrooms.	3.73	1.02	high
14. project work enables me to work collaboratively on a team.	4.00	0.85	high
15. project work helps me develop the habit of life-long learning.	3.56	0.97	high
16. project work makes me feel more confident and proud of myself when I can work on and complete the projects effectively.	3.72	0.96	high
17. I enjoy assuming different roles in the classroom (e.g., actor, manager, reporter, and researcher).	3.47	1.14	moderate
18. I like to use a variety of materials from different sources in addition to text books (e.g., films, YouTube) to work on my projects.	3.93	0.92	high
<i>Average mean score</i>	<i>3.71</i>	<i>0.89</i>	<i>high</i>

On average, the students agreed at the high level on the implementation of PBL in English classes ($M=3.71$, $SD=0.89$). The top five items which are all at the high level of

agreement included item 14 (project work enables me to work collaboratively on a team.), item 7 (the projects make me develop problem-solving skills.), item 18 (I like to use a variety of materials from different sources.), item 5 (I use a lot of creativity while working on the projects.), and item 12 (I can use 21st century skills in doing the projects.). The three lowest rated items, which are all at the moderate agreement level are item 17 (I enjoy assuming different roles in the classroom.), item 3 (I am the center of the learning, not the teacher.), and item 9 (I have freedom in choosing to do projects of their interests.).

Table 2: Teachers' Opinions towards PBL

After implementing PBL in my English class I have found that ...	\bar{X}	SD	Level of agreement
1. the projects create a fun learning atmosphere.	4.20	0.75	high
2. the projects motivate students to learn actively.	4.00	0.63	high
3. the focus of my teaching is on students, not me.	4.60	0.80	very high
4. the projects increase students' self-directed or autonomous learning.	4.40	0.49	high
5. project-based learning makes students work more creatively.	4.40	0.80	high
6. the projects make students think more logically and critically.	3.80	0.75	high
7. the projects make students develop problem-solving skills.	4.00	0.63	high
8. students develop skills in resource management.	4.20	0.75	high
9. students have freedom in choosing to do projects of their interest.	3.20	1.17	moderate
10. students develop skills to integrate language and content.	4.20	0.75	high
11. project work reflects on both process and product.	4.40	0.49	high
12. students can use integrated 21 st century skills in doing projects (e.g. language, content, technology, communication skills).	4.80	0.40	very high
13. project-based learning provides opportunities for students to experience real-life tasks outside the classrooms.	4.80	0.40	very high
14. project work helps students to work collaboratively on a team.	4.40	0.80	high
15. project work helps students to develop the habit of life-long learning.	4.20	0.75	high
16. project work makes me feel more confident and proud of myself as a teacher when students do their projects effectively.	4.20	1.60	high
17. I enjoy assuming different roles in the classroom (e.g., instructional designer, collaborator, facilitator, advisor).	4.40	0.49	high
18. I like to use a variety of materials from different sources in addition to text books (e.g., films, YouTube) to supplement my project-based instruction.	4.40	0.80	high
<i>Average mean score</i>			
	4.26	0.74	high

The teachers' average mean score was somewhat higher than that of the students (M=4.26, SD=0.74). The top three items which are at the very high level of agreement included item 12 (students can use integrated 21st century skills in doing projects.), item 13 (PBL provides opportunities for students to experience real-life tasks outside the classrooms.), and item 3 (the focus of my teaching is on the students, not the teachers.). The other items are at the high level of agreement except item 9 (students have freedom in

choosing to do projects of their interest.), which is the only one item at the moderate level of agreement with the lowest mean score.

From Tables 1 and 2, it can be seen that among the 18 items (item 1-18), the students rated 15 items at the high level of agreement, and 3 items at the moderate level while the teachers rated 3 items at the very high level, 14 items at the high level, and only 1 item at the moderate level. It can also be noticeable that although item 9 was ranked at the moderate level, it was rated with the lowest mean scores by both the students and the teachers. Among the top five items rated by the students, these five items were also found to be ranked highly by the teachers.

The second part was concerned with the problems and difficulties that students and teachers faced when using PBL in English classes. Their opinions are presented in Table 3 and Table 4.

Table 3: Student's Opinions towards Problems and Difficulties in Implementing PBL in English Classes

After undertaking PBL in my English class I have found that (n = 108)	\bar{X}	SD	Level of agreement
19. there are a lot of problems working in groups (e.g. someone does not help with the work, group conflicts, feeling discouraged, feeling dominated).	3.75	0.99	high
20. my English class size is too big to get the students to work on the projects effectively.	2.83	1.09	moderate
21. I need to invest a lot more effort and energy in working on the projects than in my normal English classes.	3.63	0.95	high
22. project-based learning wastes my time of learning.	2.46	1.02	low
23. the time the teachers give me for the projects is usually not enough.	3.81	0.98	high
24. I prefer to study with a normal lecturing style of teaching, following my teachers' instructions, not with project work.	2.66	1.19	moderate
25. teachers do not have good rubrics to assess our projects.	2.55	0.98	moderate
26. I don't get fair assessment from working in groups.	2.68	0.89	moderate
27. there are a lot of problems and it takes a lot of time to find appropriate information for the projects.	3.43	0.93	moderate
28. I am not provided with enough resources, equipment or technology for my projects.	2.62	0.82	moderate
29. there are too many projects in my English classes.	3.31	1.07	moderate
30. my parents complain about me working on the projects.	2.30	1.13	low
<i>Average mean score</i>	<i>3.00</i>	<i>1.00</i>	<i>moderate</i>

The students had a moderate level of agreement towards problems and difficulties in implementing PBL in English classes ($M=3.00$, $SD=1.00$). They agreed at the high level with three items: item 23 (the time the teachers give me for the projects is usually not enough.), item 19 (there are a lot of problems working in groups.) and item 21 (I need to invest a lot

more effort and energy in working on the project.). They agreed at the low level with item 22 (PBL wastes my time of learning and item 30 (my parents complain about me working on the projects.).

Table 4: Teachers' Opinions towards Problems and Difficulties in Implementing PBL in English Classes

After implementing PBL in my English class I have found that ...	\bar{X}	SD	Level of agreement
19. my boss does not encourage me or give me support to conduct project-based learning.	2.00	0.89	low
20. my English class size is too big to get the students to work on their projects effectively.	4.20	0.75	high
21. I need to invest a lot more effort and energy in preparing my lessons and creating materials than I do with my normal teaching.	3.20	1.17	moderate
22. project-based learning wastes my time of teaching.	1.60	0.80	low
23. I have to sacrifice my free time to counsel the students on their projects.	3.60	1.50	high
24. I prefer to teach in a normal lecturing style with me as the center of the classroom and not use project work.	2.20	0.75	low
25. it is difficult for me to design rubrics for project assessments.	2.20	1.47	low
26. it is difficult to give fair assessments for individual students in group work.	3.60	1.02	high
27. I need to have more knowledge and training on project-based learning.	2.20	1.17	low
28. I am not provided with enough resources, equipment, or technology for my project-based instruction.	2.40	1.02	low
29. the school does not appreciate or support my teaching using projects.	2.00	0.89	low
30. parents do not appreciate my instruction using projects in English classes.	2.40	0.80	low
<i>Average mean score</i>	<i>2.63</i>	<i>1.02</i>	<i>moderate</i>

The teachers shared the same moderate level of agreement towards problems and difficulties in implementing PBL in English classes with the students, but the teachers' average mean score ($M=2.63$, $SD=1.02$) is somewhat lower than that of the students ($M=3.00$, $SD=1.00$). Three items that they ranked at the high level of agreement are item 20 (my English class size is too big.), item 23 (I have to sacrifice my free time to counsel the students on their projects.), and item 26 (it is difficult to give fair assessments for individual students in group work.). The other items are at the low level of agreement except item 21 (I need to invest a lot more effort and energy in preparing my lessons and creating materials.) which is the only one item at the moderate level of agreement. It can also be seen that the item that the teachers ranked with the lowest mean score is item 22 (PBL wastes my time of teaching.).

From Tables 3 and 4, among 12 items (item 19-30), the students rated 3 items at the high level of agreement, 7 items at the moderate level, and 2 items at the low level while the teachers rated 3 items at the high level of agreement, only 1 item at the moderate level, and 8 items at the low level. It can be seen that while both the students and the students shared the same idea towards the problem indicated in item 30 (my parents complain about me working on the projects. /parents do not appreciate my instruction using projects in English classes) with the low level of agreement. They viewed the problem indicated in item 23 (the time the teachers give me for the projects is usually not enough. /I have to sacrifice my free time to counsel the students on their projects.) differently although they rated it at the same high level of agreement.

2. Qualitative data

The results of the open-ended questionnaire and interviews are as follows.

The students realized that the benefits of PBL involved enjoyment of working in groups, having an alternative way of practicing English, having opportunities for creativity, and updating knowledge about the world's current situation. They had problems concerning the limited time for the projects due to their preparation for university entrance exams, difficulties with working in groups, worries and concerns about grading and getting comments from teachers, and limited freedom in choosing the projects of their own interest.

The students offered some solutions to those challenges, for example, using better time management and requesting teachers to give fewer projects in their last year of high school study.

The teachers obviously appreciated the benefits of PBL and suggested ways to cope with the problems as follows: 1) letting students group with peers that they felt comfortable working with; 2) gaining more training in PBL teaching; 3) convincing themselves and students to see project work as a tool for 21st century life; 4) using various sources for assessment including rubrics, self- and peer assessment.

Some quoted examples from the students:

"It took all my free time and sometimes it was hard to meet my group members. We had to spend time after school, lunch hours, on the weekend and even holidays to prepare and practice for the projects."

"The teacher should have us vote for the project we wanted to do instead of telling us what to do. I want to do something that is fun, relaxing and not too much work since we hardly have time to study for the university exams and do other subjects' homework."

"I think I will practice more and do everything to reduce some excitement and make me more confident to present my project to make it successful."

Some quoted answers from the teachers:

“PBL can motivate students in learning English because it’s more fun than just listen to me and take notes. I found that they are happier when they get to work together with friends and do something out of the routine. They pay more attention and don’t get bored when they do the projects. So I do incorporate PBL in my classes, especially my reading and writing classes. The projects are my way of breaking the monotony of the subject lessons.”

“Giving students more access to the resource to make them work faster will help reduce the problems with time, for example, you can recommend some useful websites for the projects to them.”

“In my perspective, I think this approach is useful but may not be suitable for the Thai contexts. Thai students are shy and unconfident. They do not dare to express their ideas. They are not interested in attending any activities if they do not emphasize on knowledge or exams. Not only Thailand, but also Asian students would feel more comfortable with a certain amount of structures. Many teachers also find that PBL waste too much time on their teaching.”

Discussion and conclusion

The results of the study revealed that both the students and the teachers stated their opinions towards PBL implementation at the high level, and they both also viewed problems and difficulties in implementing PBL at the moderate level. The results show that the students' and teachers' opinions towards PBL were generally positive with only few exceptions.

As seen in the result of item 9 (I have freedom to choose to do projects of my interest. / students have freedom in choosing to do the projects of their interest.), both the students and the teachers rated this item with the lowest mean score. Following the ideas of Legutke (1993) and Foss et al. (2007), teachers should allow students to have freedom in selecting and designing the projects of their interest as the students can develop their critical thinking skills, get motivated and increase their learning interest. Nevertheless, regarding the Thai educational culture and context, there are difficulties and limitations for teachers in this doing in terms of the time constraints, the examination-oriented teaching and the availability of the resources which are beyond the teachers' control. In addition, teachers may lack specialized knowledge to assess and to give feedback to students in certain topics. Therefore, to allow students to choose the topics for the project can be challenge for the teachers. For Thai students, it is noted that they prefer to be instructed and assigned the topics and projects by teachers as the teachers are still considered the main source of knowledge and this results in students' lack of creativity and critical thinking in conducting the projects. Further investigation in the area of freedom in choosing the topics for PBL is needed.

However, as the results indicated there were some differences in the students' and the teachers' perspectives towards certain aspects of PBL as well as certain problems and difficulties.

As also seen in item 3, the students rated being the center of the learning at the moderate level while the teachers rated this same aspect at the very high level of agreement. As PBL puts students as the focus of the learning process, and it aims to develop students' autonomy, independent problem solving, and life-long learning (Johnson, 2013), it requires students to be active and demands a lot of efforts from them. Some students might not have totally agreed on the approach and did not fully collaborate well in class because they expected to be taught something by the teachers, and thus waited for the teachers to transfer the knowledge to them in the traditional way. This is in line with the finding found in Beckett's (2002) study, in which Asian students expected a more teacher-centered approach. In addition the teachers might not have realized that their classroom was not student-centered even though they claimed it was. Classroom observation is needed to find out whether the classrooms are truly student-centered and to investigate the factors affecting the student-centeredness.

In terms of the roles of students and teachers, the students rated item 17 (I enjoy assuming different roles in the classroom.) at the moderate level while the teachers rated the item at the high level. Theoretically, the new roles of teachers in PBL have more positive effects towards students than the traditional role as teachers can plan the lessons effectively to meet the interest and enhance the learning abilities of the students (McGhee & Kozma, 2001). Moreover, students' roles also change from passive to active role (Fried-Booth, 2002) as they need to be self-directed, collaborators and leaders. The result found in item 17 might be explained in terms of Thai high school students are occupied and overloaded with intense study and exams. They might be too exhausted to assume other roles in PBL apart from the role of a student. In this regard, teachers should take into consideration their students' hectic lives outside the classroom when implementing PBL.

Moreover, the teachers rated at the high level of agreement for the problems of too big a class size (item 20) while the students rated it at the moderate level. The teachers might have thought that too big class size hindered their success in implementing PBL while the students might prefer their friends' company in a big class and did not consider it as a big challenge. Many studies including Zhan's (2002) have shown that a large class size effected the quality of teaching and learning atmosphere for students. Nevertheless, Resnick (2003) revealed that students in small classes encountered pressure to engage in different activities. In this context, the teachers might have been aware of the students lacking opportunity to learn English effectively in large classes, but the students might have found that large classes helped lower their pressure from PBL activity engagement.

As elicited in the open-ended questionnaire and the interview, working in groups seemed to be a debatable topic for both the students and the teachers. Students mentioned the problems about team collaboration, group conflicts, domination and members not helping in groups. Nevertheless, they enjoyed working in groups and suggested that they choose their team members in order to work more efficiently. This is in line with the studies of Yalcin et al. (2009) and Gultekin (2005). They stated that PBL created the exciting and fun learning atmosphere and lowered the anxiety level of students. Particularly when their students worked with the members of their choice, they felt more comfortable and created better collaboration among the team. However, the concept is in contradiction with the study of Markham, Lamer, and Ravitz (2003). The reserachers claimed that grouping students with different levels of ability and skills helped encourage students to be interdependent and have strong accountability.

Overall, the results showed that both the students and the teachers were supportive to most aspects of PBL. This is an encouraging sign for teachers who are interested in implementing PBL in their classrooms. However, as the results also indicated that the teachers were more agreeable towards the implementation of PBL and saw fewer problems and difficulties. Further studies are needed in terms of finding ways to increase the students' positive attitude towards the implementation of PBL.

In conclusion, PBL was found to enable students to acquire English along with other skills and knowledge. The students in this study found that project work developed their collaborative skills, and that working together was more enjoyable and relaxing than working alone. This is in line with the study conducted by Fried-Booth (2002) and Bergh et al. (2006). They stated that PBL provided their students with opportunities to work collaboratively on teams, and when their students found PBL enjoyable, meaningful, and memorable, their students' motivation increased. Richards (2015) and Gardner (2007) indicated that PBL results in positive attitudes, interest, and the willingness to learn English and consequently lead to an increase in the students' motivation, which is a significant stimulant to enable the students to have the desire for learning. Thus, it can be concluded that Thai students studying in an English program can acquire English language and other knowledge from working on projects and can apply them to other content subjects, which is in accordance with the educational policy and curriculum of English education in Thailand (Ministry of Education, 2008). Moreover, the study confirmed that PBL provided students various strategies and fostered critical thinking, communication, collaboration, and creativity skills essential for success in the 21st century along with important academic contents.

For teachers, PBL gave them an opportunity to learn how to be creative by exposing their students to more learner-centered activities, how to broader their students information and knowledge, and also how to prepare their students to be successful with skills needed in the 21st century. Katz and Chard (2000) stated that PBL transforms the traditional teacher-

centered classroom into the classrooms that focus on learning activities and student-centeredness.

Apart from the benefits of PBL, the problems and difficulties faced by the teachers and the students as mentioned in the interview might have been caused by the Thai educational culture, which is principally exam-oriented and teacher-centered (Pennington, 1999). Thai students focus mainly on their grades and academic content to prepare themselves for the university entrance examination. Therefore, they found it difficult to manage their time to finish the assigned projects and to meet with team members to work on the projects. The problems with large class sizes also often made the classroom disorderly and obstructed teachers' attention to individual students and hindered student's learning progress.

Possible solutions to the problems of PBL suggested by both the students and the teachers were that the students need to acquire knowledge from various sources and become autonomous learners, while the teachers need to be trained professionally to develop themselves to implement PBL successfully in the classrooms. The traditional teachers' professional development may not be sufficient, teachers need to be equipped with other skills according to their new roles in PBL. It is also important to note that teachers need to take into consideration types of teaching situation and types of students regarding their backgrounds and needs before implementing PBL.

It is hoped that the results of the study can help ELF educators decide on appropriate methods and approaches of teaching to create enjoyable and effective EFL teaching and learning.

Recommendations

It is worthwhile examining a larger number of students and teachers in similar or different learning program settings or at different levels and/or in different contexts in order to validate and generalize the findings of the present study. Furthermore, future research may investigate students' English proficiency in relation to PBL through a pre-test and post-test. In addition, apart from EFL classes, it would be interesting that a study of PBL be conducted on other content subjects using English as the medium of instruction. Lastly, besides students and teachers, the opinions of other stakeholders, namely school administrators, parents, or policy-makers in relation to PBL should be included in future research in order to see different stakeholders' views on PBL.

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