**CHAPTER I**

**Introduction**

It is generally accepted that studying English should not essentially be concentrated on syntactic accuracy or competency in grammar usage. Instead, giving opportunities to students to use as much English as they can in real life contexts should be critically considered, especially for Thai students who have limited chances not only to be exposed to native English speakers, but also the opportunity to use English in their day to day life. On papers, English instruction in Thailand aims to improve students’ language proficiency and equip students with useful learning processes and strategies to enhance the use of English for social and academic purposes. On the other hand, the teaching and the focus of most teachers has been on grammar and correctness, thereby rendering the students’ English ability in a sorry state.

To solve this challenge, Thailand’s ESL teachers and administrators need to reassess and deploy a suitable English language teaching and learning technique that is capable of encouraging students to learn and use English language with clear importance placed on communication and real world purposes. In short, to improve Thai students’ English ability, there is a need to use a teaching and learning approach that aims at encouraging the students to communicate rather than on grammar and correctness.

Project-Based Learning (PBL) is an achievable teaching and learning approach capable of improving Thai students’ English ability due to the fact that, it is based on communicative approach. Projects are organized around a driving question, and students participate in a variety of tasks that seek to meaningfully address this question. As stated by Ronald Marx *et. al.* (1994), project-based instruction often has a ‘driving question’ encompassing worthwhile content that is anchored in a real-world problem; investigations and artifacts that allow students to learn concepts, apply information, and represent knowledge in a variety of ways, collaboration among students, teachers, and others in the community so that participants can learn from one another, and use of cognitive tools that help learners represent ideas by using technology.

The original problem-based learning model was developed for use with medical students in Canada (Barrows, 1992). The model was designed to help interns improve their diagnostic skills through working on "ill-structured problems." Medical students are introduced to a diagnostic problem, usually a patient with a complaint or illness. Using a database of information and test data about this patient and guided by a facilitator who plays the role of a coach or Socratic questioner, students are led to construct a diagnosis by generating hypotheses, collecting information relevant to their ideas (e.g., interviewing the patient, reading test data), and evaluating their hypotheses. The process, which has been used in business, architecture, law, and graduate education schools (Savey & Duffy, 1985), combines problem statements, databases, and a tutorial process to help students hone their hypothetico-deductive thinking skills. Similarly, case-based methods have been used in medical, business, and legal education to help students become proficient at preparing briefs and making presentations (Williams, 1992).

As proposed by Thomas, “Projects are central, not peripheral to the curriculum”; 2) “projects are focused on questions or problems that ‘drive’ students to encounter (and struggle with) the central concepts and principals of the discipline”; 3) “projects involve students in a constructive investigation”; 4) “projects are student-driven to some significant degree”; and 5) “projects are realistic, not school-like”. Collaboration, as a matter of fact, should also be included as a sixth criterion of PBL (Thomas & Mergendoller, 2000).

Stoller (2006) terms PBI as: 1) having a process and product; 2) giving students (partial) ownership of the project; 3) extending over a period of time (several days, weeks, or months); 4) integrating skills; 5) developing students’ understanding of a topic through the integration of language and content; 6) collaborating with other students and working on their own; 7) holding students responsible for their own learning through the gathering, processing, and reporting of information from target language resources; 8) assigning new roles and responsibilities to students and teacher; 9) providing a tangible final product; and 10) reflecting on both the process and the product. Thus, it is different from the traditional English teaching that it lays great emphasis on the communicative and functional aspect of language learning and it also pays attention to the integrity of language and content learning.

PBL marries the practical application of abstract academic concepts to critical 21st-century workplace values. Students assume collaborative responsibilities as they work in teams to address identified needs. They learn empathy, passion, compassion, and resiliency. They create products together, and in so doing they benefit themselves, their teacher, their classroom, and their community at large. The central idea of Project-Based Learning is that real-world problems capture students' interest and incite thoughtful discerning as the students attain and apply new knowledge in a problem-solving situation.

As stated by Fried-Booth, (Fried-Booth, 1997). PBL is useful by placing learners in situations that require realistic use of language in order to communicate (e.g., being part of a team or interviewing others). When learners work in pairs or in teams, they find they need skills to plan, organize, negotiate, make their points, and arrive at a consensus about issues such as what tasks to perform, who will be responsible for each task, and how information will be researched and presented.

Katz and Chard (1989) proposed and re-defined the Project-Based Learning with the following three stages. The stages objectives are to activate and enhance students’ motivation and to exercise intellectual and virtues, such as the creativity and the cooperative work using the four skills.

Getting started stage: The aim of this step is to select and refine the topic to be studied. The teacher and students make a list of familiar topics as well as authentic and personal experiences that are memorable to them. Also, they make connections between what they had read or heard in other areas and in their daily lives. Topics to be explored are discussed in detail. Usually, students elaborate questions to be analyzed. These questions contribute to focus the topic and predict the findings at the end of the project. In this case, the students were focused on thinking and solving a school problem.

Field work stage: This is the project itself. Learners can investigate about events, objects, places or topics. It allows them to get in contact with different contexts and activities. In addition to increasing English learning motivation, through their work, students can draw skills from observations, construct models, and verify their new understanding. This process of understanding of the content was possible when the student collected information about the history, description and nutritional facts of the fruits.

Culminating and debriefing events stage: In the last phase, students demonstrate their acquired knowledge. They prepare and present information through different artifacts and their own contributions. Previously, proposed questions by the teacher will be answered during the final stage.

The variety of final tasks in foreign language teaching is the component to prepare learners to use English in the world beyond the classroom. Here, the classroom environment becomes a rehearsal. Activities to report tasks using different materials will allow learners to experiment with the roles they use in real life.

By the end of the activities and results, students and teachers will become closer to each other, based on the principle of collective participation. This collective participation refers to the joint of peers in order to achieve the main goal, according to the task. It means that the students have forgotten their disagreements and they work together.

There are common features across all the various implementation stages of PBL. These include:

(a) an introduction to "set the stage" or anchor the activity;

(b) a task, guiding question or driving question;

(c) a process or investigation that results in the creation of one or more sharable artifacts;

(d) resources, such as subject-matter experts, textbooks and hypertext links;

(e) scaffolding, such as teacher conferences to help learners assess their progress, computer-based questioning and project templates;

(f) collaborations, including teams, peer reviews and external content specialists;

(g) opportunities for reflection and transfer, such as classroom debriefing sessions, journal entries and extension activities.

In Project-Based Learning students are driven to learn content and skills for an authentic purpose. PBL involves students in explaining their answers to real-life questions, problems, or challenges. It starts with a driving question that leads to inquiry and investigation. Students work to create a product or presentation as their response to the driving question. Effective Project-Based Learning involves the followings:

1. **Organizing around an open-ended Driving Question**. This focuses on students’ work and deepens their learning by framing important issues, debates, challenges or problems.
2. **Critical thinking, problem solving, collaboration, and various forms of communication.** Students need to do much more than remembering information. They need to use higher-order thinking skills and learn to work as a team. They must listen to others and make their own ideas clear when speaking, be able to read a variety of material, write or otherwise express themselves in various modes, and make effective presentations. These skills, competencies and habits of mind are often known as '21st century skills', because they are prerequisite for success in the 21st century workplace.
3. **Teaching significant content.** Goals for student learning are explicitly derived from content standards and key concepts at the heart of academic disciplines.
4. **Inquiry as part of the process of learning and creating something new.** Students ask questions, search for answers, and arrive at conclusions, leading them to construct something new: an idea, an interpretation, or a product.
5. **A need to know essential content and skills.** PBL reverses the order in which information and concepts are traditionally presented. A typical unit with a 'project' add-on begins by presenting students with knowledge and concepts and then, once gained, giving students the opportunity to apply them. PBL begins with the vision of an end product or presentation. This creates a context and reason to learn and understand the information and concepts.
6. **Some degree of student voice and choice.** Students learn to work independently and take responsibility when they are asked to make choices. The opportunity to make choices, and to express their learning in their own voice, also helps to increase students’ educational engagement.
7. **Processes for revision and reflection.** Students learn to give and receive feedback in order to improve the quality of the products they create, and are asked to think about what and how they are learning.
8. **A public audience.** Students present their work to other people, beyond their classmates and teacher – in person or online. This 'ups the stakes', increasing students’ motivation to do high-quality work, and adds to the authenticity of the project.

Largely, PBL propel students to gain a deeper understanding of the concepts and standards at the heart of a project. Projects build vital workplace skills and lifelong habits of learning. Students can use projects to address community issues, explore careers, interact with adult mentors, use technology, and present their work to audiences beyond the classroom. PBL can motivate students who might otherwise find school boring or meaningless.

My study is focused on implementing PBL in the classroom with my students to determine if PBL is capable of improving their English ability and to get the views of the students on PBL.

Chapter two includes the importance of Project-Based Learning and review of related literature. Chapter three will describe my research study and the assessment tools used to collect the data. In chapter four, the results will be presented and chapter five will be the conclusion and recommendations of the study.

* 1. **Scope and Limitation**

This study was limited to study the effects of Project-Based Learning on students’ English language ability. The study was limited to getting the responses of the students about PBL and to use pre-test and post-test to test the effectiveness of PBL on students’ English language ability. The subjects for this study were limited to 81 3rd year English major students, Faculty of Education, Suan Sunandha Rajabhat University, Bangkok. The English language proficiency level of the subjects was intermediate level while their socio-economy background portrays a lot of resemblances.

* 1. **Research Questions**

The following research questions are formulated to conduct this study:

a. What is the effect of PBL on students’ English language ability?

b. What are the perceptions or views of 81 English major students from the Faculty of Education, Suan Sunandha Rajabhat University toward PBL?

* 1. **Objectives of the Research**

The above questions were transformed into the following objectives of the study.

a. to analyze the effectiveness of PBL on students’ English language skills;

b. to find out the 3rd year English major students (Faculty of Education, Suan Sunandha Rajabhat University Bangkok) views about PBL.

* 1. **Significance of the research**

This research will try to analyze the effect of Project-Based Learning on students’ English language ability, and the findings from this study have the capacity to positively impact upon the method by which English language lessons are delivered in schools. The study will also benefit and help future researchers as their guide.

**CHAPTER II**

**REVIEW OF LITERATURE**

PBL is different from traditional instruction because it emphasizes learning through student-centered, interdisciplinary, and integrated activities in real world situations (Solomon, 2003; Willie, 2001). The review of literature is divided into four parts. The first part will deal on the importance of Project-Based Learning, and the second part will pin on other researches that show the effectiveness of Project-Based Learning, and the third part will present the theory of PBL followed by the structure of PBL. While the last part presents the challenges associated with the implementation of PBL.

**2.1. Importance of Project-Based Learning**

The 21st century workplace requires critical thinking and problem-solving skills. English language learners increasingly will need specialized training in order to catch up with the future trend. The importance of Project-Based Learning outlined below is overwhelmingly capable to use as a practical teaching approach for the benefit of the learners.

**2.1.1. Connecting academic situations to the real world**

PBL provides the opportunity for the students to learn with the same approach they will use in their future careers. This equips critical problem-solving procedures within them at an earlier stage of their life and extremely increasing their likelihoods of success in the future career they choose once in their education.

* + 1. **Development of interpersonal skills**

Since projects are often complex, students are grouped together to work, which nurtures communication skills and boosts even students with different and possibly contradictory dispositions to find a mutual ground, or at the very least a way to work together without continuous pressure. Part of this teamwork building helps introduce students to the specialization and delegation that are extremely prominent in the real world.

* + 1. **Provides Educators insight into students learning habits**

With each new project that’s proposed and completed by the students, teachers receive an indication into the interests, passions and motivators of their students. Everything about a given project – the topic that’s selected, how it’s presented, how students works with others, where they pull their research from – gives educators crucial information about the learning habits of the students.

* + 1. **PBL builds success skills for college, career, and life**

In the 21st century workplace and in college, success requires more than basic knowledge and skills. In a project, students learn how to take initiative and responsibility, build their confidence, solve problems, work in teams, communicate ideas, and manage themselves more effectively.

* + 1. **PBL makes school more engaging for students**

Most ESL students often find learning to be boring and meaningless. In PBL, students are active, not passive; a project engages their hearts and minds, and provides real-world relevance for learning, which in turn, increases their learning motivation.

* 1. **Related Researches that Shows the Effectiveness of Project-Based Learning**

There are numerous researches and literature done and documented about the effectiveness of PBL that has made ESL teachers and researchers to turn their attention to the approach. They are unified and confidence that the approach can possibly have benefits in enhancing students’ English language ability.

Alacapinar, F. (2008) conducted a Quasi-Experimental, Qualitative study on the effects of Project-Based Learning (PBL) on cognitive and psychomotor achievements and affective domain of the students using data collection: Video, interviews, psychomotor instrument. Students in the experimental group showed gains in achievement, and in cognitive and psychomotor domains. Students enjoyed the project work and noted improved self-confidence, creativity, ability to plan and develop ideas, problem-solving skills, and the benefits of working in groups.

Duangkamol Thitivesa and Abigail Melad Essien (2013) data from their research, “The Use of Project to Enhance Student Teachers’ Writing Skills in a Rajabhat University” showed that, the English major students improved their writing. The achievement means of the group in regards of grammatical correctness at sentence level was 28.6053 points out of the 40 total scores, and standard deviation was 3.1153 points. Comparing to the 80% attainment target, it was found that there were significant differences at 0.05 (t=101.699, P-value=0.000). Wu and Meng ([2010](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4728160/#CR42)) witnessed the advantage of PBL in the fostering of cognitive and metacognitive strategies and the enhancement of motivation. These factors promoted the development of English language proficiency and cultural sensitivity. Cognitive skills were also developed with young learners with PBL.

Similarly, Beckett (1999) investigated the implementation of project-based instruction in a Canadian secondary school ESL class. The main purpose of the study was to examine ESL teachers’ goal for PBL, and ESL teachers’ and students’ evaluation of project-based instruction. The results of the data collected through observations and interviews of the subjects indicated that PBL is highly favored by the ESL teachers because it allowed them to take an integrated approach to language teaching. The subjects attested to the fact that PBL allowed them to foster critical thinking and problem-solving skills and promote independent as well as cooperative learning skills among the students. They evaluated project-based instruction favorably also because they thought it provided contexts for their students to learn English functionally. The teachers were delighted that project activities allowed for unexpected learning to take place.

Campbell ([2012](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4728160/#CR9)) observed the use of PBL in ESL classrooms with 15–16-year-old students. The study used mixed methods including observations and a collection of artifacts, direct instruction times and attendance. During the analysis of over 60 h of observation, various themes were identified, including direct instruction, missing directions, wasted time, computer distractions, attendance, follow-through, vocabulary instruction, grouping, class size, percentage of ELL students, student motivation, use of resources, differentiated instruction, and student confidence and ability. It was concluded that the development of communicative competences enhanced collaboration (Campbell [2012](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4728160/#CR9)).

Some studies have observed the effects of Project-Based Learning on learners’ characteristics that are related with school failure in traditional classroom conditions. Beneke and Ostrosky (2008) in their research surveyed teacher insights of how project-based instruction affected different learners in selected preschool classrooms. The results showed that the real-world focus of the projects permitted students who did not in general do well in academic discussions to share their knowledge about subject-matter that was familiar and accessible. The result in this study also revealed a reduced need for disciplinary actions during project-based study, due to the increased in student engagement as the main reason. In addition, the studies of Mergendoller & Maxwell, (2006); Tal, Krajcik and Blumenfeld, (2006) also reported academic beneficially effects of PBL on low to middle achieving students.

Tretten and Zachariou (1995) conducted an assessment of Project-Based Learning in four elementary schools using teacher questionnaires, teacher interviews, and a survey of parents. Of interest in this study was the fact that the schools involved had only recently begun to experiment with Project-Based Learning and that all teachers, a total of 64 across the four schools, were surveyed. The average percentage of instructional time devoted to Project-Based Learning across all schools and teachers was 37%. According to teachers' self-reports, experience with Project-Based Learning activities had a variety of positive benefits for students including attitudes towards learning, work habits, problem-solving capabilities, and self-esteem. In summary, the authors state that:

Habók ([2015](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4728160/#CR21)) reports the successful implementation of a concept map-based PBL developmental programme among pre-school children. The outcome of the programme was increased experimental reasoning and comprehension as compared to the control group. The positive effect of PBL on learning was also measured in later ages. For example, Bagnasco et al. ([2010](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4728160/#CR2)) analysed the effect of PBL on the academic performance of nursing students and found that Problem-Based Learning embedded in PBL promoted learning.

In summary, findings from numerous studies demonstrate the positive outcomes of using PBL. These benefits include improved academic performance, as well as enhanced social skills development and higher participation in the learning process.

* 1. **Theory behind PBL**

PBL can be seen as a combination of cognitive and social constructivist theories, as developed by Piaget and Vygotsky respectively. The major points of each of these theories are outlined in the table below.

|  |  |
| --- | --- |
| **Cognitive Constructivism (Piaget)** | **Social Constructivism (Vygotsky)** |
| The MIND is in the head; focus on "cognitive reorganization” | The MIND is in social transactions and emerges from acculturation into a community of practice |
| RAW MATERIALS; uses primary data, "manipulatives", or other interactive materials | AUTHENTIC PROBLEMS; learning environments reflect real-world complexities |
| STUDENT AUTONOMY; thinking and learning responsibility in students' hands to foster ownership | TEAM CHOICE AND COMMON INTERESTS; builds on common interests and experiences within a learning group, and gives some choice to that group; learning activities are "relevant, meaningful, and both product and process oriented" |
| MEANINGFULNESS AND PERSONAL MOTIVATION; learning related to personal ideas and experiences | SOCIAL DIALOGUE AND ELABORATION; uses activities with multiple solutions, uncertainty, novelty, etc., demanding dialogue, idea sharing, etc.; encourages student elaboration/justification for their responses through discussion, questioning, group presentations |
| CONCEPTUAL ORGANIZATION/ COGNITIVE FRAMING; information organized around concepts, problems, questions, themes, interrelationships; activities framed within thinking-related terminology | GROUP PROCESSING AND REFLECTION; encourages group processing of experiences |
| PRIOR KNOWLEDGE AND MISCONCEPTIONS; builds on prior knowledge and addresses misconceptions | TEACHER EXPLANATIONS, SUPPORT, & DEMONSTRATIONS; demonstrates problems steps and provides hints, prompts, cues, and clarifications where requested |
| QUESTIONING; promotes individual inquiry with open-ended questions; encourages question-asking behavior | MULTIPLE VIEWPOINTS; fosters multiple ways of understanding a problem; builds in audiences beyond the instructor |

* 1. **The Structure of Project-Based Learning**

Project-Based Learning emphasizes learning activities that are long-term, interdisciplinary and student-centered. Unlike traditional teacher-led classroom activities, students often must organize their own work and manage their own time in a project-based class. For it to be successful, it must follow certain structures.

**2.4.1. Project is a process**

The planning and implementation of a project is a highly time-consuming activity and requires great attention to detail. There are numerous aspects which call for careful consideration (Habók [2015](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4728160/#CR21)). Firstly, choosing a topic and a title that is to the point is very important. Involving students in the decision-making process is beneficial because they will feel more involved in the project on the whole. In addition, student involvement in selecting the topic, which may cover one subject or can be interdisciplinary, is also key. Increased engagement results in a greater number of shared experiences and thus facilitates motivation. Secondly, planning involves assigning roles and activities, organizing groups, and establishing venues and financial and time requirements. During the planning stage, teachers should consider the features of the venue and ensure that groups have sufficient workspace without distracting each other. Moreover, all participants should be able to accomplish the task, and the necessary tools should be available to everyone. At this stage, the teacher controls the process, but students may also be involved. Klug et al. ([2014](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4728160/#CR32) full abstract) highlighted the importance of teacher behaviour and its long-term effect on lifelong learning. Their research revealed a greater amount of teacher success in sparking interest in a new topic than supporting students during the planning process.

In addition, the project should ensure that students carry out research and work cooperatively in order to enhance their problem-solving skills, motivation and creativity. Data collection may take place within or outside the classroom. Students can carry out research within the classroom using available literature and online resources, or they can expand their learning environment and gather information in a wider context, for example, by organizing trips. The topic can be discussed during regular lessons, or separate days can be allocated exclusively to the project. In Hungary, it is common practice to organize projects weeks at the end of the term.

Finally, evaluation focuses on the presentation of the final product, which can take various forms, such as a school presentation, a short film, a diary entry or any other form which helps students summarize the work process. The final presentation also necessitates planning, as students need to agree on the roles and tasks of each participant prior to the presentation. Evaluation may take various forms; besides teacher evaluation, peer and self-evaluation are also available. Since PBL departs from the traditional classroom approach, evaluation should be devised accordingly. Traditional evaluation methods most probably are not suitable for the measurement and assessment of the knowledge and skills acquired during PBL. More fitting evaluation methods include peer evaluation, self-evaluation, oral presentation and a practical exam (Habók [2015](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4728160/#CR21)). Although PBL projects are generally short-term projects ranging from a few days to few months in duration, Thomas reports the beneficial effect of the use of PBL over a span of 3 years, with a significant increase in performance (Thomas [2000](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4728160/#CR39)).

**2.4.2. Instructional Designing Ethics in Project-Based Learning**

There are many factors to bear in mind when designing a project for students. The factors include: meeting demand of new technology, posing a real problem for students, covering more than two disciplines when doing the project, fostering students’ creativity, asking students to present their job responsibility, and improving autonomous learning.

**2.4.2.1. Design to Be Tailored to the Development of New Technology**

With the development of digital technology, instructional strategies and tools have changed. Instructional design must evolve with them. Teachers should design a lesson plan to align to an instructional reform. Designing activities includes making adaptations to existing curricula during or prior to instruction and designing new learning experiences. Not only do we want teachers to have the capacity to make adaptations to curricula that bring new technology-enhanced learning into their classrooms in ways that ﬁt, we also want them to have the capacity to design new technology-enhanced learning experiences (Vanessa, Richard, Ornit, &Yael, 2015). We need to give students opportunities to fully apply new technology to their project. We design a task in which students need to get online and search for information. They also need to generalize and analyze what they have gained from the internet and share views with peers on it.

**2.4.2.2. Design to Cover More Than Two Disciplines**

Taking the major field of students into consideration, we design the project to expand both major knowledge and foreign language skills. For instance, for software majors, we provide them with a project of making English learning software, which combines two skills: how to make software and how to give a presentation in English on the whole process. On the one hand, all of the students have 12 years of learning English (In China, students learn English from grade one in primary school). They have rich experience of learning English and know about the demand of it when making software. On the other hand, students are wholly involved in five stages of process of making software: need requirement analysis, designing interface, coding, software testing, and software maintenance. Their job responsibility includes designing questionnaires and collecting answers from customers about the needs for software; designing interface based on customers need; converting a piece of information into another form or representation; executing a program or application with the intent of finding software bugs and debugging; stable operation, improvement of the system, regular optimization of existing software, and handling application software failures. The project practices their research capabilities, designing and art skill, coding skill, testing skill, and problem-solving skill.

**2.4.2.3. Design to Pose a Real Problem for Students**

In PBL, students face a challenging task, and their designs, problem-solving, decision-making, and research allow them to autonomously conduct work related to the topic during a period of time, completing a real product (Thomas, 2000). The basis of PBL lies in the authenticity or real-life application of the learning. The real problem stimulates students’ interest and motivation, especially when students have the expectation that their real product will be used by themselves and their peers. For software majors, the real-world problem is to make software. When students have hands-on experience, they are much clearer about the process of making software and the different task in each stage. They practice distributing a certain amount time to a specific smaller assignment so that they can fulfill the whole task. They are also aware of the importance and realization of connecting functions from one stage to another.

**2.4.2.4. Design to Foster Students’ Creativity**

If creative thinking capabilities could be incorporated into courses, students could form and develop creative ideas and increase their imagination allowing them to see problems from other perspectives and to cultivate problem-solving ability (Maisuria, 2005). The education and promotion of creativity in university technological education is a significant issue. The project of making software gives students great chances to experience and sense creativity, from need analysis to interface design; students should create questionnaires by themselves and make design by themselves. This tests their ability of actualization of the innovation and inspiration with their own understanding for the project.

**2.4.2.5. Design to Promote Autonomous Learning**

Boaler (2002) noted that, in project-based learning, students were more responsible for autonomous learning and learnt more than from other instructional models (Boaler, 2002). The teacher acts as a facilitator in the learning process, instead of just transmitting knowledge (Fontes, Mendes Neto, Pontes, & Campos, 2011). He/she guides students to apply their acquired knowledge in new situations. The learning is student centric and self-directed. Students, organized in small collaborative groups, are motivated to discover, through investigation and research, useful solutions (Laysa, Francisco, & Alexandre, 2011). When students take responsibility, or ownership, for their learning, their self-esteem soars. It also helps to create better work habits and attitudes toward learning. Although students do work in groups, they also become more independent because they are receiving little instruction from the teacher. The students learn more than just finding answers and PBL allows them to expand their minds and think beyond what they normally would.

**2.4.3. Group dynamics in PBL**

Teams are responsible for scheduling their own activities and deciding how to use their time to solve the problem and master the learning objectives. Groups usually consist of 5 to 7 students. Each member of the group maintains a particular role throughout the duration of the project. The four possible roles are:

1. project leader - proposes meeting agendas, suggests division of labor, and develops the overall project plan.
2. facilitator - describes the process to be followed during the steps of the project plan, determines appropriate time to proceed in plan, and suggests adjustments to the plan as needed.
3. recorder - takes group notes of each meeting.
4. team member - takes individual notes, participates in discussion, and reviews resource materials.

**2.4.4. Individual role in PBL**

The individual student in PBL has an active role in learning. PBL requires that students have responsibility for their own learning by identifying their learning issues and needs.

As stated by Schmidt and Moust, the student progresses through a series of steps, "The Seven Jump", during the PBL process.

1. Clarify unknown terms and concepts in the problem description.
2. Define the problem(s). List the phenomena or events to be explained.
3. Analyze the problem(s). Step 1. Brainstorm. Try to produce as many different explanations for the phenomena as you think of. Use prior knowledge and common sense.
4. Analyze the problem(s). Step 2. Discuss. Criticize the explanations proposed and try to produce a coherent description of the processes that, according to what you think, underlie the phenomena or events.
5. Formulate learning issues for self-directed learning.
6. Fill in gaps in your knowledge through self-study.
7. Share your findings with your group and try to integrate the knowledge acquired into a comprehensive explanation for the phenomena or events.

**2.4.5. Teachers’ Role in PBL**

In a normal PBL setting, it is ideal that the students choose projects, but since in lower-level classes students often do not have the required language skills or confidence to develop project themes, the teacher must listen to them and try to identify some underlying issues that are meaningful to the students, paying special attention to their needs, interests, cultural background, and social background.

With beginner level students, the teacher may have to take a fairly active role, providing examples of previously completed projects to encourage the students to produce their own. With more advanced classes, however, it is easier to get the class to develop a project that meets a need they have identified. In these situations, the teacher takes the role of a facilitator (Gaer 1998). Projects that students choose to do may be based on some topic in their textbook or may merely be a source of entertainment and a break from routine classroom activities.

When outlining a project, teachers must always keep in mind the linguistic objectives and the content standards that will be addressed. The choice of the topic is also of huge importance; it must be up-to-date, motivate the students and keep them interested throughout the project. It is important to involve the students in planning and decision making since this will help them develop a feeling of ownership of the project. After agreeing on the theme of the project and determining the final outcome of the project (e.g., written report, brochure, handbook, oral presentation, video, multimedia presentation, theatrical performance), the teacher must also design a timeline for project components and help the students define a specific flexible schedule to accomplish the project. The teacher designs language-improvement activities to help students successfully present the final outcome of the project. Those activities may focus on skills for successful oral presentations or persuasive debates.

Another role of the teacher is to monitor the students and the progress of the project, as well as to assess the final outcome. One of the most important things the teacher should not forget when using Project-Based Learning is to ask the students to provide feedback on the project experience and to reflect on the language and the subject matter acquired during the project. This will help the teacher see the drawbacks of the project and make it more elaborate each year. In this last stage of project work teachers also provide students with feedback on their language and content learning.

**2.4.6. Challenges Associated with the Implementation of PBL**

Though PBL is seen to be an effective approach in enhancing students learning attitude and proficiency, there exist some challenges outline below:

**2.4.6.1. Challenges Encountered by Students**

Krajcik, Blumenfeld, Marx, Bass, Fredricks, and Soloway (1998) describe case studies of eight students enrolled in two seventh-grade science classroom. The case studies were constructed by two classroom teachers during a seven month period that included a two-month introductory project, a week of training on working together and sharing information, and two subsequent projects, one entitled, "Where does our garbage go?," and the other, "Water, water everywhere! Is there enough to drink?" Students, two boys and two girls in each of the two classes, were selected as representative of the lower middle range of science achievement and on the basis of the likelihood that they would be informative interviewees. Classrooms were videotaped and students were interviewed frequently. Cases were constructed for each student for each project using videotaped observations, artifacts from the projects, and interview results. Summaries were developed for how each student participated in each aspect of the inquiry: (a) generating questions, (b) designing investigations and planning procedures, (c) constructing apparatus and carrying out investigations, (d) analyzing data and drawing conclusions, and (e) presenting artifacts. Special attention in these summaries was given to "thoughtfulness, motivation, and how group conversation and teacher supports and feedback influenced inquiry." Results were described with respect to aspects of the inquiry process that students handled adequately and those with which students had difficulty. Students showed proficiency at generating plans and carrying out procedures. However, students had difficulty (a) generating meaningful scientific questions, (b) managing complexity and time, (c) transforming data, and (d) developing a logical argument to support claims. More specifically, students tended to pursue questions without examining the merits of the question, they tended to pursue questions that were based on personal preference rather than questions that were warranted by the scientific content of the project, they had difficulty understanding the concept of controlled environments, they created research designs that were inadequate given their research questions, they developed incomplete plans for data collection, they often failed to carry out their plans systematically, they tended to present data and state conclusions without describing the link between the two, and they often did not use all of their data in drawing conclusions. The findings point to the need for developing multiple supports for students as they conduct their inquiry. As stated by the authors, "We need to consider a range of scaffolds from teachers, peers, and technology that can aid students in examining the scientific worth of their questions, the merits of their designs and data collection plans, the adequacy and systematicity of their conduct of the investigation, and the accuracy of their data analysis and conclusions." (p. 348).

Similarly, Achilles and Hoover (1996) reported poor implementation results for three middle schools and one high school classroom taking part in Problem-Based Learning. Students failed to work together well, especially in small groups. The authors attribute these problems to students' lack of social skills. It is difficult, however, to evaluate the meaning of this study. A minimum of data is presented and, more important perhaps, the design of the project consisted of a highly scripted, problem-solving activity which may have accounted for students' desultory participation.

**2.4.6.2. Challenges Encountered by Teachers**

Ladewski, Krajcik, and Harvey (1991) report on one aspect of University of Michigan study. They describe one middle-school teacher's attempts to understand and enact Project-Based Science. The results from this case study demonstrate how new instructional approaches can conflict with deep-seated beliefs on the part of a teacher, leading to conflicts which can take a good deal of time to resolve. Among the dilemmas that seemed to interfere with a straightforward implementation of PBL in this study are the following: (a) should time be most effectively used to allow students to pursue their own investigations or to cover the state prescribed curriculum? (b) Should activities be designed to allow students to seek their own answers or be teacher-controlled so that (all) students obtain the same "correct" results? (c) Should students be given the responsibility for guiding their own learning or should the (more knowledgeable) teacher take responsibility for directing activities and disseminating information in the classroom?

Marx et al. (1991) summarized PBL implementation challenges faced by teachers under three headings: challenges, enactment, and change. Challenges grew out of difficulties teachers had in accepting the ideas that (a) effective collaboration among students requires more than involvement, it requires exchanging ideas and negotiating meaning; (b) effective use of technology requires that technology be used as a cognitive tool, not merely as an instructional aid; and (c) effective Project-Based Science requires not that all the concepts and facts of the curriculum are covered, but that students construct their own understanding by pursuing a driving question.

Marx et al. (1997) outline teachers' enactment problems as follows:

**Time**: Projects often take longer than anticipated. In addition, difficulties that teachers experience in incorporating Project-Based Science into district guidelines are exacerbated by the time necessary to implement in-depth approaches such as Project-Based Learning.

**Classroom management**: In order for students to work productively, teachers must balance the need to allow students to work on their own with the need to maintain order.

**Control**: Teachers often feel the need to control the flow of information while at the same time believing that students' understanding requires that they build their own understanding.

**Support of student learning**: Teachers have difficulty scaffolding students' activities, sometimes giving them too much independence or too little modeling and feedback.

**Technology use**: Teachers have difficulty incorporating technology into the classroom, especially as a cognitive tool.

**Assessmen**t: Teachers have difficulty designing assessments that require students to demonstrate their understanding.

In conclusion, the researchers concluded that change in teachers’ learning and behavior tends to take certain forms (Marx et al., 1991, 1997). Teachers prefer to explore those aspects of Project-Based Science related to their professional needs and current capabilities (e.g., technology). Teachers' efforts to change their teaching strategies tend to focus on one or two aspects of the new approach (only) and one or two new strategies designed to cope with new challenges. Teachers tend to modify their practices in idiosyncratic ways, mapping new behaviors onto old behaviors and moving back and forth between old and new practices, sometimes successfully, sometimes not so successfully. In addition, modifying their practices causes teachers to become novices again, which often results in awkward classroom management behaviors and shortcomings associated with orchestrating the multiple features of problem-based science. The authors conclude, however, that problems with enactment can be effectively facilitated by a supportive school environment that allows teachers to reflect on their practices and to attempt changes in these practices through enactment linked with collaboration and feedback.

Thomas and Mergendoller (2000) conducted a survey of PBL teachers designed to elicit or construct principles (conditions and strategies) associated with successful implementation of project work. Twelve middle- and high school teachers were selected for their status as expert practitioners in the eyes of their peers. A semi-structured telephone interview schedule was developed in order to elicit considerations and strategies associated with these teachers' planning and enactment activities. The interview consisted of 43 questions relating to such topics as recordkeeping, use of technology, classroom management, and grading. Teachers' responses were then categorized into recurring, qualitatively distinct themes. In the end, teachers' responses were organized into 10 themes. Themes were constructed to reflect the larger issues that seemed to recur across teachers' answers to the interview questions. Principles were summaries of teachers' strategic responses to the issues raised in the themes. An example of a theme was "creating a positive learning environment." Principles associated with this theme were: (1) establish a culture that stresses student self-management and self-direction; (2) use models or exemplars of excellent work; and (3) create a physical environment that will facilitate project work.

**2.4.6.3. Challenges associated with school factors**

A school factor that facilitates or impedes the successful implementation of PBL in classrooms is a popular topic among PBL teachers in schools. It is not as popular as a research focus, possibly because of the difficulty associated with conducting this kind of research. Edelson et al. (1999) describe a number of practical constraints associated with the organization of schools that interfere with successful inquiry. These factors include fixed and inadequate resources, inflexible schedules, and incompatible technology. To this list, Blumenfeld, Krajcik, Marx, & Soloway (1994) add class size and composition, and district curricular policy as restrictions that interfered with enactment of Project-Based Learning. School factors were the prime impediment reported by Hertzog (1994) in a summary of how well Project-Based Learning was operationalized in an elementary school setting. According to Hertzog, the physical organization of the school, limitations on time available for learning, and the perceived need on the part of teachers to structure time in order to cover all academic subjects tend to interfere with the effectiveness of Project-Based Learning for integrating subject matter areas and providing for in-depth learning.

**CHAPTER III**

**Methodology**

The purpose of this study was to analyze the effectiveness of PBL on students’ English language skills, and to find out the perception of the students toward PBL. During the study, PBL activities were presented to the students from a variety of sources for ten weeks. The activities contained: lesson topic, academic objectives and, language objectives. This chapter has been separated into four parts:

1. Description of the subjects used.
2. Description of instruments used.
3. Description of data collection.
4. Data analysis.

**3.1.** **Description of the subjects used**

The study was conducted in the English language department, Faculty of Education, Suan Sunandha Rajabhat University, Bangkok. The subjects for this study were 81 3rd year English major students from the Faculty of Education, Suan Sunandha Rajabhat University Bangkok, Thailand. The English language proficiency level of the subjects and their socio-economy were similar.

* 1. **Description of instruments used**

The study was carried out for ten weeks. The study used both quantitative and qualitative research methods. T-test is used to analyze the effectiveness of PBL on students’ English language skills, while the questionnaire form is used to analyze students’ perceptions of PBL.

* + 1. **The Pre- Test and the Post- Test Questions**

The measure given in the pre-test and post-test was in the form of speaking, reading, and writing test. Each question was worth 5 points and the sum total of the test was 100 points.

* + 1. **The Questionnaire Form**

The questionnaire form used sought to identify students’ views toward PBL by giving them a ten-item questionnaire on their perceived experiences when they worked in pairs or groups while studying English language in a PBL setting. All the items in the questionnaire were designed for a Likert scale response using a four-interval scale of “agree”, “strongly agree”, “disagree”, and “strongly disagree”.

* 1. **Data Collection**

The data for this study was collected through the result of the T-test and the questionnaire form after the ten weeks study to assess the effectiveness of PBL and to assess students’ perception and views toward PBL.

* 1. **Data Analysis**

For clarity, to show the comparison between the pre-test and the post-test, the researcher made use of percentage to analyze the data obtained from the two tests. For the analysis of the data collected from the questionnaire survey, qualitative descriptive statistical analysis was used.

**CHAPTER IV**

**Results**

This research was set out to analyze the effectiveness of PBL on students’ English language skills, and to find out the perception of the students towards PBL. Analysis and interpretation of data is aimed at showing if students’ result in the post-test is better that the pre-test, and also if students’ views toward PBL is positive or negative. The results are separated into two different sections to represent the two different instruments used for this study.

The first section presents the students’ result from the post-test and the pre-test while the second sections summarized the students’ perception toward PBL.

* 1. **Students’ Pre-Test Result**

**Table 1: Pre-Test**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total Score**  **100%** | **80%** | **70%** | **60%** | **50%** | **40%** | **30%** | **20%** | **Below 20** |
| Number of Students | 0 | 0 | 20 | 7 | 40 | 10 | 4 | 0 |
| Percentage of Students | 0% | 0% | 25% | 9% | 49% | 12% | 5% | 0% |

From the results of the pre-test in the table above, it can be seen that vast majority of the students (66%) got below 50% which was the passing mark set by the researcher. Notably, no students (0%) got up to 80% which was the desirable mark set by the researcher to test the students’ English language skills.

* 1. **Students’ Post-Test Result**

**Table 2: Post-Test**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total Score**  **100%** | **80%** | **70%** | **60%** | **50%** | **40%** | **30%** | **20%** | **Below 20** |
| Number of Students | 70 | 11 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percentage of Students | 86% | 14% | 0% | 0% | 0% | 0% | 0% | 0% |

Positively, the result from the post-test from the table 2 shows an incredible positive result from the students’ English language ability after studying in a PBL classroom setting. Interestingly, 70 (86%) of the students got 80% which was the mark set by the researcher to test the effectiveness of PBL on student’s English language ability. While 11 (14%) got 70% which is still an encouraging indication of the effectiveness of PBL.

Outstandingly, no students (0%) got 50% nor below 50% compared to the result of the pre-test. Consequently, it will be right for the researcher to conclude that PBL has a positive effect on the students’ English language skills.

* 1. **Questionnaire Result**

**Table 3: Students’ General Perceptions of Project-Based Learning Approach**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Questionnaire Items** | **Strongly agree** | **Agree** | **Strongly disagree** | **Disagree** |
| 1. I found being able to collaborate in my group in practical sessions very helpful. | 60  (74%) | 21  (26%) | 0  (0%) | 0  (0%) |
| 2. I prefer PBL to traditional method of teaching. | 80  (99%) | 1  (1%) | 0  (0%) | 0  (0%) |
| 3. I am actively engaged in group discussions. | 50  (62%) | 20  (25%) | 0  (0%) | 11  (13%) |
| 4. By discussing with my group members, I understood better about what I was learning. | 75  (93%) | 6  (7%) | 0  (0%) | 0  (0%) |
| 5. The instructional methodology provided me with enough scope to display my English language skills. | 50  (62%) | 31  (38%) | 0  (0%) | 0  (0%) |
| 6. PBL increased my interest in learning English. | 48  (59%) | 33  (41%) | 0  (0%) | 0  (0%) |
| 7. The instructional methodology in this course suited the way I like to learn. | 70  (86%) | 11  (14%) | 0  (0%) | (0%) |
| 8. I found being able to collaborate in my group in practical sessions very helpful. | 70  (86%) | 11  (14%) | 0  (0%) | 0  (0%) |
| 9. I am able to evaluate my own, and my group’s learning outcomes at the end of the PBL tutorial. | 65  (80%) | 11  (14%) | 0  (0%) | 5  (6%) |
| 10. There is not enough opportunities to discuss, and provide feedback, on how my group functions during PBL tutorials. | 0  ( 0%) | 0  (0%) | 50  (62%) | 31  (38%) |

The table 3 above is the data from the questionnaire form that was filled out by the subjects of this study. All the items in the questionnaire were designed for a Likert scale response using a four-interval scale of “agree”, “strongly agree”, “disagree”, and “strongly disagree”.

The result from the questionnaire as shown in the table below shows that 80 (99%) of the participants strongly agreed that they prefer PBL to traditional method of teaching. Evidently, all the subjects of this study also agreed that, PBL as an instructional methodology provided them with enough scope to earn and display their English language skills.

The result is a testament to the fact that PBL is able to improve students’ collaboration skills, which is a very important skill needed in todays and future workplace. All the students, 70 (86%) strongly agreed and 11 (14%) agreed that PBL greatly improved their collaborative skills during group practical sessions. The responses by the subjects of this study to the questionnaire items suggest that, all the participants indeed embraced PBL as a viable teaching approach capable of improving students’ English language skills and positive learning attitudes.

**CHAPTER V**

**Conclusion and Recommendations**

The lack of inspiration to learn English is a common problem in most schools in Thailand. The majority of Thai students do not see English language as an essential asset for the future. Therefore, most of them do not really care about their English proficiency level. While the cause of this problem is broad, but the main factor to be blame is mostly the teaching approaches used by Thai ESL teachers. In effect, adopting the right teaching approach that is capable of motivating Thai students’ to learn English so that their English proficiency would be improved is needed.

The research objectives are analyzing the effectiveness of PBL on students’ English language ability and to describe students’ perceptions of PBL.

This chapter presents the conclusion and the recommendation of this study.

* 1. **Conclusion**

Project-Based Learning has been discovered to enhance not only the motivation of the students to learn English but also capable of improving students’ English proficiency. Since PBL is based on solving real life problem, the learning and teaching of English procedure becomes more engaging and cooperative in nature in solving the problem. The result of students’ pre-test and post-test is a clearer indication that indeed, PBL enhances students English language proficiency. Data form the questionnaire form revealed enhancement in English learning and general attitude toward learning English. The students believed that the implementation of this project was appropriate for the course because they had the opportunity to apply their knowledge in other subject areas and English skills they learned from the English class when they carried out the project. The subjects of this study concluded that PBL is very helpful in improving their English language abilities. The conclusion of this study validates findings from a large number of studies in this field, which show that PBL activities allow students to integrate language skills and content knowledge to complete the projects (Fried-Booth, 1997; Duangkamol Thitivesa and Abigail Melad Essien, 2013; Mergendoller, J. R., & Maxwell, N. L 2006; Alacapınar, F., 2008).

* 1. **Recommendations**

The Common Core and other present-day education standards emphasize real-world application of knowledge and skills, and the development of success skills such as critical thinking/problem solving, collaboration, communication in a variety of media, and speaking and presentation skills. Projects allow teachers to work more closely with students doing high-quality, meaningful work, and in many cases to rediscover the joy of learning alongside their students.

Studying English should not necessarily focus on syntactic accuracy or proficiency in grammar usage. Instead, it should be giving opportunities to students to use as much English as they can in real life contexts. Especially for Thai students who have limited chances of using English, PBL is a better toll to give them the opportunities and encouragement to use language with an emphasis on communicative purposes in real world settings, rather than solely focus on accuracy as in traditional teaching. It is demonstrated that PBL can motivate learners to use language skills learned from the English class and support learners’ confidence in using English. Therefore it will be beneficial for educationist and policy makers to start implementing PBL approach in Thai schools.

English teaching and learning process entails going beyond the classroom. Teachers and students should get involved in the social life of their context. PBL class implies that students’ can participate in making decisions about the way of solving a problem, the content and the process to develop the project. The teacher is a guide and a propitiator of spaces where the students have the opportunity to increase their individual and social values and it will allow them to increase their language skills.

Nevertheless, this study is an exploratory in nature and limited to improvement of learners’ language skills through PBL. Therefore, future studies is encouraged to further investigate the effectiveness of PBL in other English language learning areas of Thai students.

**BIBLIOGRAPHY**

**References:**

Alacapınar, F. (2008). Effectiveness of project-based learning. Eurasian Journal of Educational Research, 32,17-35.

Alake-Tuenter E, Biemans HAJ, Tobi H, Mulder M. Inquiry-based science teaching competence of primary school teachers: a Delphi study. Teach Teach Educ. 2013;35:13–24. doi: 10.1016/j.tate.2013.04.013. [[Cross Ref](https://dx.doi.org/10.1016%2Fj.tate.2013.04.013)]

Bagnasco A, Siri A, Sasso L. Project-based learning in the clinical setting: an experimentation in undergraduate nursing students. Int J Interdiscip Soc Sci. 2010;5(5):67–77.

Baumgartner E, Zabin C. A case study of project-based instruction in the ninth grade: a semester-long study of intertidal biodiversity. Environ Educ Res. 2008;14(2):97–114. doi: 10.1080/13504620801951640. [[Cross Ref](https://dx.doi.org/10.1080%2F13504620801951640)]

Beckett, G.B. (1999). Project-based instruction in a Canadian secondary school's ESL classes: Goals and evaluations. Unpublished doctoral dissertation,University ofBritish Columbia.

Beneke, S., & Ostrosky, M. M. (2008). Teachers’ views of the efficacy of incorporating the project approach into classroom practice with diverse learners. Young Children, (1), 1-9.

Campbell SA. The phenomenological study of ESL students in a project-based learning environment. Int J Interdiscip Soc Sci. 2012;6(11):139–152.

Cheng W-Y, Lam S-F, Chan C-Y. When high achievers and low achievers work in the same group: the roles of group heterogeneity and processes in project-based learning. Br J Educ Psychol. 2008;78(2):205–221. doi: 10.1348/000709907X218160. [[PubMed](https://www.ncbi.nlm.nih.gov/pubmed/17588293)] [[Cross Ref](https://dx.doi.org/10.1348%2F000709907X218160)]

Chu SKW, Tse SK, Chow K. Using collaborative teaching and inquiry project-based learning to help primary students develop information literacy and information skills. Libr Inf Sci Res. 2011;33:132–143. doi: 10.1016/j.lisr.2010.07.017. [[Cross Ref](https://dx.doi.org/10.1016%2Fj.lisr.2010.07.017)]

Cook-Sather A. Students as learners and teachers: taking responsibility, transforming education, and redefining accountability. Curric Inq. 2010;40:555–575. doi: 10.1111/j.1467-873X.2010.00501.x. [[Cross Ref](https://dx.doi.org/10.1111%2Fj.1467-873X.2010.00501.x)]

Duangkamol Thitivesa and Abigail Melad Essien., “The Use of Project to Enhance Student Teachers’ Writing Skills in a Rajabhat University” in Conf Rec. 2013 ICBME’13 Int. Conf. Business, management and Economics, CH73000.Barron, C. (2002). “Problem-solving and EAP: themes and issues in a Collaborative Teaching Ventures “In English for Specific Purposes, 22, 297 – 314.

Filippatou D, Kaldi S. The effectiveness of project-based learning on pupils with learning difficulties regarding academic performance, group work and motivation. Int J Spec Educ. 2010;25(1):17–26.

Fried-Booth, D. L. (1997). Project Work. (8th Ed.) Oxford: Oxford University Press. Gopinathan, S. (1999). Preparing for the next rung: economic restructuring and educational reform in Singapore. Journal of Education and Work, 12(3), 295-307.

Henk G. Schmidt and Jos H.C. Moust. (1998) from [*Processes that Shape Small-Group Tutorial Learning: A Review of Research*](http://sll.stanford.edu/Internal/Forums/DDBiblio/cgi-bin/FVwMsgThr.cgi?fid=DDBiblio&tid=Problem-Based_Learning/Finding&mid=35.20#35.20)by Henk G. Schmidt and Jos H.C. Moust, Paper presented at Annual Meeting of the American Educational Research Association, 1998.

Hertzog B. Transporting pedagogy: implementing the project approach in two first-grade classrooms. J Adv Acad. 2007;18(4):530–564.

Hmelo-Silver CE. Problem-based learning: what and how do students learn? Educ Psychol Rev. 2004;16(3):235–266. doi: 10.1023/B:EDPR.0000034022.16470.f3. [[Cross Ref](https://dx.doi.org/10.1023%2FB%3AEDPR.0000034022.16470.f3)]

Holm M. Project-based instruction: a review of the literature on effectiveness in Prekindergarten through 12th grade classrooms. InSight Rivier Acad J. 2011;7(2):1–13.

Hovey AK, Ferguson LA. Teacher perspectives and experiences. Using project-based learning with exceptional and diverse students. Curric Teach Dialogue. 2014;16(1):77–90.

Katz, L. G., & Chard, S. C. (1989). Engaging Children’s Minds: The Project Approach. Norwood, NJ: Ablex. (ERIC Document No. ED407074) February 2012.

Krajcik, J. & Blumenfeld, P. (2006). Urban schoolsʼ teachers enacting project-based science. Journal of Research in Science Teaching, 43(7), 722-745.

Le Fevre DM. Barriers to implementing pedagogical change: the role of teachers’ perceptions of risk. Teach Teach Educ. 2014;38:56–64. doi: 10.1016/j.tate.2013.11.007. [[Cross Ref](https://dx.doi.org/10.1016%2Fj.tate.2013.11.007)]

Lee H-J, Lim C. Peer evaluation in blended team project-based learning: what do students find important? Educ Technol Soc. 2012;15(4):214–224.

Markham T, Larmer J, Ravitz J. Project based learning handbook: a guide to standards-focused project based learning for middle and high school teachers. Novato: Buck Institute for Education; 2003.

Marx, R. W., Blumenfeld, P. C., Krajcik, J. S., & Soloway, E. (1997). Enacting Project-Based Science: Challenges for Practice and Policy. Elementary School Journal, 97, 341-358. <http://dx.doi.org/10.1086/461870>

Marx, R. (1994). Enacting project-based science: Experiences of four middle grade teachers. Elementary School Journal, 94, 517–538.

Mergendoller, J. R., & Maxwell, N. L. (2006). The effectiveness of problem-based instruction: A Comparative study of instructional methods and student characteristics. The Interdisciplinary Journal of Problem-Based Learning, 1(2), 49-69.Coelho, E. (1994). Learning together in the multicultural classroom. Markham, Onta Pippin Publishing Limited.

Savey, J. R. & Duffy, T. M. (1985). Problem based learning: An instructional model and its constructivist framework. Educational Technology, 35 (5), 31-38

Stoller, F. (2006). Establishing a Theoretical Foundation for Project-Based Learning in Second and Foreign Language Contexts. In G. H. Beckett, & P. C. Miller, Eds., Project-Based Second and Foreign Language Education: Past, Present, and Future (pp. 19-40). Greenwich, CT: Information Age.

Tretten, R. & Zachariou, P. (1995). Learning about project-based learning: Self-assessment preliminary report of results. San Rafael, CA:

Williams, S. M. (1992). Putting case-based instruction into context: Examples from legal and medical education, The Journal of the Learning Sciences, 2, 367-427.

**APPENDICES**

**APPENDIX A**

**Students’ General Perceptions of Project-Based Learning Approach Questionnaire Form**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Questionnaire Items** | **Strongly agree** | **Agree** | **Strongly disagree** | **Disagree** |
| 1. I found being able to collaborate in my group in practical sessions very helpful. |  |  |  |  |
| 2. I prefer PBL to traditional method of teaching. |  |  |  |  |
| 3. I am actively engaged in group discussions. |  |  |  |  |
| 4. By discussing with my group members, I understood better about what I was learning. |  |  |  |  |
| 5. The instructional methodology provided me with enough scope to display my English language skills. |  |  |  |  |
| 6. PBL increased my interest in learning English. |  |  |  |  |
| 7. The instructional methodology in this course suited the way I like to learn. |  |  |  |  |
| 8. I found being able to collaborate in my group in practical sessions very helpful. |  |  |  |  |
| 9. I am able to evaluate my own, and, my group’s learning outcomes at the end of the PBL tutorial. |  |  |  |  |
| 10. There is not enough opportunities to discuss, and provide feedback, on how my group functions during PBL tutorials |  |  |  |  |

**BIOGRAPHY**

First name – Last name Mrs. Abigail Melad Essien

Education Bachelor’s Degree in Education, Saint Paul University, Philippines

Work Position and Current Workplace

English Lecturer, Faculty of Education, Suan Sunandha Rajabhat University, Bangkok, Thailand

Experience, Academic works, Awards or significant scholarship (if any)

Mrs. Essien began his teaching career in the Philippines in 2001 as a primary school teacher and teen acting project manager for St. Paul San Ildefonso, Bulacan. She left the Philippines for Thailand to fulfill her career dream of becoming an ESL teacher. Mrs. Essien launched her ESL career in 2002 when she joined Saint Mary’s College in Nakhonratchasima, Thailand as an ESL teacher. She later moved in 2004 to Marie Vittaya School in Pakchong as a high school ESL teacher. In 2006 she became a teacher at Banna Nayokpittayakorn School in Nakorn Nayok and later moved to Thanyaburi Secondary School as an ESL teacher in 2007. Mrs. Essien made a tremendous career move to join the Faculty of Education of Suan Sunandha Rajabhat University as an English Language teacher in 2011.

Currently, as an English language teacher in the English department, Faculty of Education Suan Suanandha Rajabhat University, Mrs. Essien has been actively involved in different capacities in various educational development programs aimed towards the revitalization of English teaching in Thailand. Presently, she is the English department project manager of the Annual Symposium in English Teaching. Due to her in-depth knowledge in the field of education and her special public speaking skills, she was actively involved as a speaker in the academic service workshops entitled, “Testing and Indicators” on May 10-12, 2014 at Suan Sunandha Rajabhat University, and “English Language Learning Extra-curricular Activities for Primary and Secondary School Teachers” hosted by the Office of Primary Education, Chiangrai Area 4, Thoeng, Chiangrai, Thailand on May 9-10, 2016.

Mrs. Abigail Essien’s professional focus is on educators’ training and specialized development; student commitment; and leadership development. She has co-accomplished and published a research entitled, “The Use of Project to Enhance Writing Skill”. A research presented in WASET, Zurich, Switzerland, January, 2013. Owing to her unending desire to contribute to the development of ESL in Thailand, she has personally accomplished and published well noted researches entitled, “Effectiveness of Cooperative Learning Methodology in Improving Students’ Learning Attitude towards English Language”, a paper presented in the International Journal of Arts and Sciences (IJAS), Freiburg, Germany, December 2014; “Combating the English Language Deficiency: The Labor Market Experiences of Graduate Students from Suan Sunanadha Rajabhat University in Thailand”, presented in International Conference on Business, Economics, Social Science, and Humanities (BESSH), Tokyo, Japan, May 2016; “The Effect of Collaborative Strategic Reading on the Reading and Comprehension of the 3rd Year Early Childhood Education Major Students in Suan Sunandha Rajabhat University, Bangkok”, presented in International Journal of Arts and Sciences (IJAS), Prague, Czech Republic, November 2016; “ESL Students’ Experience of Project-Based Learning”, presented in The International Academic Multidisciplinary Research Conference on Education, Social Sciences, and Humanities, London, United Kingdom, April 2017; “The Effects of Project-Based Learning on Students’ English Language Ability”, presented in The International Academic Multidisciplinary Research Conference on Education, Social Sciences, and Humanities, Vienna, Austria, March 2018; and “Content-Based Instruction: The Experiences of Foreign Teachers in Thailand”, presented in The International Academic Multidisciplinary Research Conference on Education, Social Sciences, and Humanities, Zurich, Switzerland, June 2018.