THE EFFECTS OF PROJECT-BASED LEARNING ON STUDENTS' ENGLISH LANGUAGE ABILITY

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ABSTRACT

Education is a crucial factor when it comes to preparing the next generation to face the ever changing future. Old-fashioned learning styles in classroom-based education is questionable and lacking in providing the necessary tools needed by the students to survive in the ever growing intricacy in our lives and societies. Numerous researches in the learning methods have unlocked new views in Project-Based Learning. Project-Based Learning (PBL) is a student-centered teaching that involves a dynamic classroom approach in which the students acquire a deeper knowledge through active exploration of real-world challenges and problems. Several studies have revealed project-based instruction as being capable of providing English language learners with prospects for comprehensible output and integrated language learning. This study is designed to analyze the effectiveness of PBL on students' English language ability and to analyze students' perceptions of PBL. The study employed both quantitative and qualitative research methods. T-test is used to analyze the effectiveness of PBL on students' English language skills, while a questionnaire form is used to analyze students' perceptions of PBL. The population of the study consists of 81 3rd year English major students, Faculty of Education, Suan Sunandha Rajabhat University, Bangkok. Data obtained from T-test and the questionnaire form revealed positive effects of PBL on students' English language ability. 80% of the students scored above average in the post test compared to only 20% in the pre – test. Majority of the subjects resolved that PBL has improved their critical thinking ability, independent study skill, personal and social responsibility, and strong communication skills. The outcomes of the study is a great pointer for ESL educators to deploy Project-Based Learning as a teaching methodology to enhance students English language ability.

Keywords: ESL Students, Project-Based Learning

INTRODUCTION

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 in 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.

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. 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).

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.

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.

Largely, students 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.

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.

Although PBL projects are defined in advance by the instructor, yet they are complex, and cannot be solved by one correct or easy-to-find response. For instance, medical students learn to diagnose and treat actual patients to some degree, this is something that can't be learn in a lecture hall. Dissimilar to textbook-driven instruction, problem-based learning places the student in control of asking questions and determining the answers. Based on the collaborative nature of project work, students can develop skills needed to improve their English language proficiency.

IMPORTANCE OF PROJECT-BASED LEARNING

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 equip critical problem-solving procedures within them at an earlier stage of their life and extremely increasing their likelihoods of success in their future career they choose.

1.2. 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.

1.3. 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.

RELATED LITERATURE

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.

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.

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).

Mergendoller & Maxwell (2006) research compared the relative effectiveness of traditional and project-based instruction in 12th grade social studies. The findings showed that, the quantitative analysis of student achievement yielded modestly higher achievement in the PBL group. Students who scored in the mid to low ter tiles on the Quick Word Test showed the greatest gains in content learning; these gains were not particularly significant on the group scale, but at the student level, translated to about one-half grade difference, suggesting potential use of PBL as a means of heightening achievement in students who struggle with traditional methods. PBL was also found to propel relatively higher interest in the subject matter.

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.

METHODOLOGY

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.

2. 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".

3. Participants

The participants were 81 3rd year English major students from the Faculty of Education, Suan Sunandha Rajabhat University Bangkok, Thailand.

4. 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, quantitative descriptive statistical analysis was used.

RESULTS

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

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%

Positively, the results from the post-test from the table below 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 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.

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%

The results 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 results 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.

Table 3
Students' General Perceptions of Project-Based Learning Approach

Questionnaire Items	Strongly agree	Agree	No opinion	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%)	0 (0%)
2. I prefer PBL to traditional method of teaching.	80 (99%)	1 (1%)	0 (0%)	0 (0%)	0 (0%)
3. I am actively engaged in group discussions.	50 (62%)	20 (25%)	0 (0%)	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%)	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%)	0 (0%)
6. PBL increased my interest in learning English.	48 (59%)	33 (41%)	0 (0%)	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 (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%)	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%)	0 (100%)	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%)	0 (0%)	50 (62%)	31 (38%)

CONCLUSION

The Common Core and other present-day 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. Data from this study is overwhelming enough for educationist and policy makers to start implementing PBL approach in schools.

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