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Assessing the Impact of the Project-Based Learning Approach on Students Academic Achievement and Attitudes Toward English Lesson

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Abstract

This action research (AR) aims to assess the impact of the project-based learning (PBL) approach on academic achievement and attitudes towards English lessons among grade twelve students. The AR has adopted a mixed method *called* convergent parallel research design. The quantitative data were administered through achievement tests (pre-test and post-test) and survey questionnaires. The qualitative data was collected using a semi-structured interview. Two volunteer teachers who participated shared their experiences of PBL lessons. Pre-test and post-test were administered through fifteen multiple choice questions with five solving questions to collect quantitative data. The pair sample t-test depicted a higher score post-test EG (M=26.05) than the post-test CG (M=14.86). This AR adopted a simple random probability sampling to a sample size of 65 out of 182 students in grade twelve for five weeks (six periods per week). The findings of the AR confirmed that the use of PBL enhances the students' learning compared to the conventional teaching method. Overall, the AR showed a positive correlation between qualitative and quantitative findings. Thus, this study recommended English teachers use it as an alternative to the conventional method.

Keywords: Project-Based Learning, Academic achievement, Attitudes towards lesson, English lesson.

INTRODUCTION

Background

In the 21st century transformation of education, the new generation of information technologies such as artificial intelligence, big data, and meta-verse are bringing changes to education. The ongoing global efforts for education reform and development, the mission is to cultivate students with higher-order thinking skills capable of adapting to the future progress of society and adeptly handling the real world (Ma and Yang, 2021). Different types of problems make various teaching methods and guide the development of students' thinking skills. Project-based learning (PBL) is a new model of inquiry-based learning. It is a student-centered teaching approach to cultivate 21st-century skills, especially higher-order thinking skills based on problem-solving (Killen, 2009). The advantages of this approach over traditional teaching and learning models are being recognized and explored.

The teaching-learning becomes effective when the curriculum is appropriately executed in the classroom, employing suitable teaching strategies, instructional tools, and assessments. The teacher should look for

strategies that motivate students and support desired learning. According to REC (2009), the student finds difficulty in learning is one of the teacher's ineffective use of teaching approaches in the classroom. Such research findings reflect the role of teachers in quality teaching for their students. Attitude, knowledge, and learning outcomes depend on effective teaching. Teachers need to adapt their teaching approaches to guide conceptual understanding. Teachers must gain contemporary knowledge, attitudes, and skills to handle 21st century pedagogy. The Bhutan Professional Standards for Teachers (MoE, 2020) requires all teachers to adopt appropriate content and pedagogical practices to develop higher-order thinking skills in students. The quality of education has a determinant impact on the nation's competency, well-being, and success.

Project-based learning is an instructional method centered on the learner. Learners develop a question and undergo guided research under the teacher's supervision (Bell, 2010). Unlike traditional lesson plans that dictate a predetermined path of learning outcomes, project-based learning encourages a thorough exploration of a topic for in-depth understanding (Harris & Katz, 2001; Erdem, 2002). Thomas et al. (1999) described projects within project-based learning as based on challenging questions, empowering students to play a central role in the design, problem-solving, and decision-making processes, thus affording them relative autonomy. In project-based learning, students plan, implement, and evaluate projects that have real-world applications beyond the classroom (Blank, 1997). This approach used in the class is possible after providing the necessary information for the project. The classroom activities should be student-centered, cooperative, and interactive.

Many studies explain the advantages of using project-based learning in educational settings (Demirel et al., 2000; Korkmaz, 2002; Balkı-Girgin, 2003; Yurtluk, 2003; Gultekin, 2005). However, a few have focused on project-based learning in English language teaching (Cirak, 2006; Bas & Beyhan, 2010). This study will examine the project-based learning approach over the traditional methods. Also, this study can provide a close link between project-based learning and language learning and, at the same time, propose guidelines for English language teachers who wish to implement project-based learning to enhance their students' language learning. On the other hand, by carrying out this study, the researcher hopes to receive more attention from English language teachers at all grade levels.

Problem Statement

The issue of effective teaching has long appealed to many educational researchers. The teachers play the most central role in ensuring quality learning and improving the quality of education. Teachers must possess sound pedagogical knowledge and skills to make teaching-learning processes effective and meaningful (REC, 2010; Knowles et al., 2000). Despite the Department of Adult and Higher Education (DAHE) stipulating a minimum English score of 55% for undergraduate scholarships, the performance of grade twelve learners in English has consistently fallen short (BCSEA, 2022).

As a language teacher and researcher, I observed a notable lack of motivation and drive among students to excel in English class. Their achievement appeared stagnant, and a discernible disengagement manifested in the English classroom compared to other subjects. In response, this action research project endeavors to introduce a new teaching practice in the English classroom that would be more effective in raising student achievement and improving learners' engagement in English. This research adopted a project-based learning approach to facilitate hands-on learning experiences to address the identified challenges and achieve the desired outcomes.

Objectives of the research

The research objectives are

1. Assess the impact of the project-based learning (PBL) approach on students' academic achievement in English.
2. Compare the performance of students exposed to PBL with those in traditional English learning settings.
3. Examine students' attitudes toward English lessons before and after implementing the PBL approach.

Research Questions

1. What is the academic achievement difference between students exposed to the project-based learning (PBL) approach and those in conventional English learning environments?
2. How do students' attitudes toward PBL approach English lessons?

Significant of the research

The study allowed for a comprehensive exploration of the impact of project-based learning, providing empirical evidence that contributes to a deeper understanding of its impact on student's academic performance and attitudes in English lessons.

LITERATURE REVIEW

The project method originates from Pragmatism, the philosophical movement that appeared in the middle of the 19th century and promotes action and practical application of knowledge in everyday life (Frey, 1996, p.31). The founder of PBL is the American educational reformer John Dewey at the turn of the 19th and 20th centuries in the USA. He is considered an ideological father of PBL. Dewey believes a child is a complex individual and seeks to cultivate an intrinsic desire for learning. Coufalova (2006) further stated the philosophy of learning by doing and laid the theoretical groundwork for PBL. However, the method formalization is also credited to William Heard Kilpatrick, who emphasized students' interest in work and encouraged to learn by themselves.

PBL has been defined differently by various authors. It is "an instructional approach that contextualizes learning by presenting learners with problems to solve or products to develop" (Moss & Van Duzer, 2005, p. 2). The PBL approach is a systematic teaching method that involves students acquiring knowledge and skills through a structured and extended inquiry process centered on complex, authentic questions and designed products and tasks (Markham et al., 2003). According to Bayraktar (2015), PBL is defined as an educational approach rooted in constructivism, viewing students learning as a dynamic process. The primary objective of PBL is to facilitate student development through collaborative efforts and the cultivation of critical thinking skills (Dewey, 1938; Thomas, 2000).

Much literature reports the advantages of the PBL approach. Klein et al. (2009) assert that PBL contributes to increased student engagement for several reasons. First, students excel when allowed to become experts and are called exportable knowledge. Students who work on their projects tend to learn about the subject in their final products. They review and write reflections on the information they discover and then share it with others. Second, projects provide students with opportunities for authentic investigations and presentations. They help them understand the real purpose behind learning and presenting their acquired knowledge. Students identify genuine problems to explore, conducting investigations through real-world sources such as internet sites, journal articles, and interviews. In the process of research, they establish connections with their interests. Thirdly, learning is inherently social, and PBL facilitates collaborative learning. Students are highly motivated with opportunities to discuss ideas with their peers. Lastly, projects empower students to be active learners by allowing them to take charge, question, make decisions, analyze, think critically, create, and present.

Similarly, the study by Liu (2004) observed that average-performing students perform well in assessments when exposed to the Project-Based Learning (PBL) teaching approach. Furthermore, the students achieve higher grades when PBL is implemented in the classroom, as indicated by the findings of Seger et al. (2003). Students who taught using PBL enjoyed more learning and gave higher evaluations to their curriculum than non-PBL students (Morrison, 2004). The potential reasons for these positive outcomes include effective data gathering, problem-solving techniques, self-assessment strategies, and improved learning competency. Additionally, PBL challenges students to perform with critical reasoning and problem-solving skills to conclude (Cooke & Moyle, 2002). Sharp & Primrose (2003) found that many students had a positive attitude toward PBL application and enjoyed the teaching-learning process.

Many research studies reveal that Project-Based Learning (PBL) enhances classroom engagement and content learning. However, studies on implementing PBL in English classrooms are limited, especially in literature. Therefore, the researcher proposed to study the impact of PBL in an English classroom in grade twelve.

RESEARCH METHODOLOGY

Research Design

This research employed a convergent parallel research design, which adopts a mixed methods approach involving the independent collection of qualitative and quantitative data. Subsequently, the data sets compared and contrasted to address the research problem (Creswell, 2013). Similarly, the researcher collected qualitative and quantitative data to analyze separately and merge the findings to ensure a comprehensive understanding of the research question.

In this design, one type of data that help the other, with the secondary data supporting the primary data (Greene, 2006). For instance, the quantitative data collected supports the qualitative data. Thus, the triangulation of one set of finding with another enhances the validity of inferences.

Sampling

The sample data collected from grade twelve students and teachers. The study selected two sections (one as a control group (CG) and the other as an experimental group (EG)). The data collected using a simple random probability sampling technique.

Instruments

The instruments in this study used learning English Achievement Tests (EAT), survey questionnaires and semi-structured interviews. The senior colleagues from the different schools had validated the instrument questions. The achievement test (both pre-test and post-test) consisted of twenty five items and will rate out of forty. The questions pilot-tested using Cronbach's alpha (α), and 0.8 showed reliability for the study. After the post-test, a 5-point Likert scale survey questionnaire (5= Strongly Agree, 4= Agree, 3= Neutral, 2= Strongly Disagree, 1= Disagree) administered to determine students' perceptions intervention program. Also, this study adopted a semi-structured interview as a third tool to find teacher participants' perceptions towards using the PBL approach in English classrooms.

Data Analysis

Quantitative data were analyzed using the Statistical Package for Social Sciences (SPSS) version 22.0 and MS Excel from the Microsoft Office package. SPSS used for paired sample t-tests and descriptive analysis to find Mean (M), Standard Deviation (SD), and frequencies. Composite values will be compiled for each theme and categorized into three levels (Low, Medium, High, Highest) based on combined Mean. MS-Excel will help prepare to form tables and graphs.

Similarly, the semi-structured interview (qualitative) were transcribed and analyzed based on the approaches of Creswell's thematic coding technique (Creswell, 2014). Similar codes were combined and categorized into different themes to help answer the research questions.

Ethical consideration

Ethical considerations in research are the mandate principles for researchers to adhere to a code of conduct when collecting data. The data collection involved research approval and ethical procedures (Creswell, 2012).

Firstly, the teacher researcher got an approval letter from the Chief District Education Officer (CDEO) and the school's Principal to allow for data collection. Secondly, the researcher oriented the student respondents and participants about the purpose of the study. Similarly, the participants were informed of the right to withdraw from participation if they are insecure. Finally, the teacher researcher ensured the information or identity given by participants will maintain utmost confidentiality.

FINDING AND DISCUSSION

Descriptive statistics of the English Achievement Test (EAT)

Normality Test

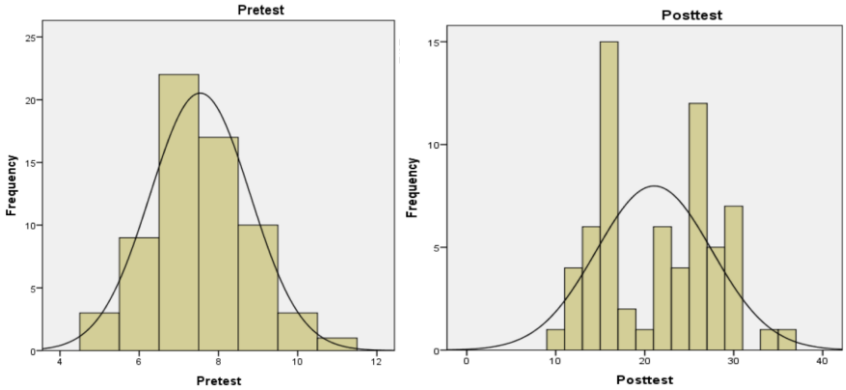
The normality tests were employed to ascertain whether the sample data exhibited a normal distribution. Due to the sample size being less than 50 in each group, Skewness and Kurtosis statistics and histograms evaluate the normality of the distribution of the test scores. The analysis included a Skewness and Kurtosis statistic table for the pre-test and post-test scores of the group.The descriptive statistics of the scores given (Table 1), is the value of the Skewness and Kurtosis scores' distribution between -1.96 and +1.96. Thus, it can be concluded that the pre-test and post-test scores of the group (CG and EG) were normally distributed.

Table 1 Descriptive Statistics Normality data of the Group

	N	Mean	Std. Dev.	Skewness		Kurtosis	
	Stat	Stat	Std. Err	Stat	Std. Err	Stat	Std.Err
Pre-test	2	7.54	.22	.27	.29	.06	.58
Post-test	36	21.06	.80	.09	.29	-1.18	.58

The histograms (figure 1) were the visually approximate shape of a bell-shaped or normality curve that indicated the normal distribution of data. It supports the normality of groups' pre-test and post-test scores related to EAT.

Figure 1 Histogram of Pre-test and Post-test of Group (CG & EG).



The results shown in Table 2 showed that the differences between mean scores of CG and EG were not statistically significant at α = 0.05. The *p*-value =.45>0.05. This indicated that the groups were homogeneous or similar in abilities before the treatment was conducted (M=7.16, M=7.36), thus suitable for the study on the topic.

Table 2 Pair Sample T-test of Pre-test between Experimental and Control group

	Groups	N	Mean	Mean difference	Std. Deviation	Sig (2 Tailed)
Pre-test	CG	29	7.22	0.11	1.26	0.45
	EG	36	7.33		1.29	

Significant values (p=0.45 > 0.05).

However, as the result Table 3 showed that the project based-learning (PBL) intervention significantly was higher than the traditional: [p=.001<0.05, a post-test CG ($\bar{x}$=14.86), post-test EG ($\bar{x}$=26.05) and mean difference of ($\bar{x}$=11.19)]. The result was obtained from the pair sample t-test on the achievement test. Therefore, the overall results showed that project-based learning (PBL) approach outperformed the traditional teaching on English achievement tests (EAT).

Table 3 Pair Sample T-test of Pre-test between Experimental and Control group

	Groups	N	Mean	Mean difference	Std. Deviation	Sig (2 Tailed)
Post test	CG	29	14.86	11.19	2.65	0.001*
	EG	36	26.05		3.74	

Significant values (p=0.45 > 0.05).

The paired sample t-test was performed at a 95% confidence level to compare pre-and post-test scores within the control group. The findings (presented in Table 4) reveal a statistically significant difference between pre-test and post-test scores [t (28) = -18.70, p=.001 < 0.05]. The mean post-test score (M=20.51) exceeded the mean pre-test score (M=12.77), resulting in a mean score difference of (M=7.74). This outcome underscores a noteworthy enhancement in the conventional approach, indicating an improvement in students' learning achievement.

Table 4 Paired Samples Test of the English Achievement Test (EAT) for pre-test & post-test

		N	$\bar{x}$	MD	SD	SD Err.	t	Sig (2 Tailed)
CG	Pre-test	29	7.22	7.64	2.19	.40	-18.70	.001*
	Post-test	29	14.86					

Significance level of p=*.001** < 0.05

Similarly, the findings in Table 5, the PBL intervention demonstrated significantly higher effectiveness compared to the traditional method: [t (35) = -30.07, p=.001<0.05, with a pre-test mean of ($\bar{x}$=7.33), post-test mean of ($\bar{x}$=26.06), and a mean difference of ($\bar{x}$=18.73)]. The results used the paired sample t-test on the achievement test. Hence, the overall outcomes indicate that the project-based learning (PBL) approach outperformed the traditional teaching method in English achievement tests (EAT).

Table 5 Paired Samples Test of the English Achievement Test (EAT) for pre-test & post-test

		N	$\bar{x}$	MD	SD	SD Err.	t	Sig (2 Tailed)
EG	Pre-test	36	7.33	18.73	3.73	.62	-30.07	.001*
	Post-test	36	26.06					

Significance level of $p=.001^* < 0.05$

Questionnaires Analysis on Students' Perception

The questionnaire consists of 15 statements that were administered to the students in the EG after the post-test. An (n=39) students were participated to rate their agreement responses based on the Brown Model (Chapter 3). Analysis based on quantitative data indicated that students have overall positive perceptions towards Project-Based Learning (PBL). Additionally, mean, standard deviations, and level of perception were used to examine the perceptions of students towards the PBL.

Table 6 shows a descriptive analysis of students' perception with the overall mean scores (M=3.83) and standard deviation (SD=0.90). The participants possess a "High" perception towards the practice of the project-based learning (PBL) approach. The learners' perceptions were interpreted by using the Brown Model scale (Chapter 3).

Table 6 Students' Rating on Perception with the Project-based Learning (PBL) Approach

No	Item	Mean	SD	Degree of perception
1	Participating in PBL helps me think and read more critically.	4.29	.76	Highest
2	Participating in PBL wastes my time.	4.38	.92	Highest
3	Participating in PBL helps me learn English.	4.38	.49	Highest
4	Participating in PBL hinders my learning.	3.35	1.15	High
5	Participating in PBL broadens my knowledge of life.	3.73	1.18	High
6	I feel that participating in PBL is boring.	4.11	1.14	Highest
7	I am more motivated when I participate in PBL.	3.73	.79	High
8	Participating in PBL is a burdensome experience.	4.02	1.08	Highest
9	I am stressed when I participate in PBL.	3.82	1.24	High
10	Participating in PBL makes me proud of myself as being a helpful participant.	3.64	.98	High
11	Participating in PBL, I can communicate my ideas clearly.	3.52	.99	High
12	I would rather take a test than complete a test project or make a presentation in English class.	3.67	.76	High
13	Participating in PBL, I can cope with my problems and information.	3.23	.98	High
14	Participating in PBL expands my idea and helps me think critically.	3.91	.96	High

15	If I am a teacher, I will not employ this teaching method.	3.70	1.16	High
	Average	3.83	0.90	High

Level of Perception: 0.0-1 Lowest, 1.1-2 Low, 2.1-3Moderate, 3.1-4 High, 4.1-5 Highest: Brown (2010)

Semi-Structured Interview

Semi-structured *face-to-face interviews* were analyzed to validate and connect the quantitative data responses to the achievement test. The interview helps the researcher to collect in-depth and meaningful information (Merriam, 2015). The two English teachers volunteered for an interview. The interview took about 16 minutes each.

The interview was audio recorded with the teacher participants. The audiotapes were played back several times and transcribed to facilitate data analysis. The participants were coded as T1 and T2 to maintain the confidentiality. The data transcriptions were based on their responses. A total of three themes were identified - teachers' perceptions towards using the PBL, its impacts, and challenges.

Correspondingly, the study based on semi-structured interview data revealed that the PBL was found to be fostering a positive learning environment. Participants T1 and T2 shared a similar opinion about the experience on PBL learning has positively influenced academic achievements in English by promoting the understanding of concepts, improving critical thinking and problem-solving skills, and communication abilities in students. The students found contribute to improve in their academic performance. The participants wished to use the same teaching approach and recommended to use PBL in other subjects. Further, T1 shared his experience taking class:

> I found that Project-Based Learning in the English classroom prompts students to actively engage in research, collaborate with peers, and utilize their abilities to enhance their skills. This approach nurtures their creativity, bolsters problem-solving skills, and enhances a deeper comprehension of the subject matter.

The second theme explores the effects of PBL lessons. The participants view that they found more impact using PBL pedagogy. For instance, T2 stated that,

> "PBL empowers students to take ownership of their learning process. By allowing them to explore topics of interest and work on projects that they find meaningful, PBL can increase students' motivation and enthusiasm for learning".

Additionally, a similar view was shared by T1

> "I am happy to use the PBL approach often because the lesson captures students' interest and motivation by providing real-world contexts and hands-on activities".

The third common theme is the challenges in the PBL classroom. Both the participants shared their concern about limited resources in the school. For example, T2 specified, "I feel that limited resources are the main challenge for teachers in designing and implementing meaningful projects that meet learning objectives". Besides the challenges, T1 added, "The problem that we faced was the lack of necessary require access to resources such as technology, materials, and outside expertise".

DISCUSSION

A paired sample t-test was conducted to investigate the effectiveness of the PBL on students' scores on the English Achievement Test (EAT). The finding revealed that the PBL has significantly improved learners' achievement scores in English. The intervention result showed a significantly higher than the

traditional [p=.001<0.05, a post-test CG (=14.86), post-test EG (=26.05), and mean difference of (=11.19)]. Similar findings have been shared by Baş (2011), who found that the post-test scores in the PBL (=2.73) which was significantly higher than the mean of post-test scores in the control group (=2.036). The study was conducted at Sakarya, Turkey, to compare with the conventional teaching methods. Likewise, the study by Liu (2004) observed that students with average academic performance excel in assessments when exposed to Project-Based Learning (PBL) teaching methods. In addition, the PBL approach used in the classrooms results in good performance, as evidenced by Seger et al. (2003) findings. Furthermore, Morrison (2004) discovered that students taught using PBL reported greater enjoyment in learning and provided higher evaluations of their curriculum to those not exposed to PBL.

Additionally, this finding was consistent with Çırak (2006) that 70% of their students increased their standardized test scores in the post-test, and 80% developed better attitudes while they were taught with the PBL approach. The studies by Çınar et al. (2005) and Ciftci and Sunbul (2006) have also reported that one way to explain why students outperform in PBL is because of exposure to diverse skills like collaboration, project planning, decision-making, critical thinking, and time management. Collaborative learning enhances idea exchange, opinion expression, and solution negotiation for future workplaces. This hands-on approach encourages deeper understanding and retention of concepts compared to passive learning methods. Such a learning approach creates opportunities for students as a learning platform through PBL.

The survey questionnaire was administered to a group of respondents (N=36) in the experimental group to assess their perceptions following the treatment. The results of a descriptive analysis concerning respondents' factors revealed a notably high perception level regarding the practice of the PBL approach. The overall mean value showed (M= 3.83), with a standard deviation (SD=0.90). The 67.6% of respondents agreed that the adoption of a project-based learning activity enabled them to develop better skills in collaboration and teamwork. As group work in running the project work, it allowed learners to work and share responsibilities within the group throughout the project work. This is consistent with Essien (2018), who found that PBL enables students to improve collaboration skills by involving in group work. Similarly, Natividad and Batang (2018) pointed out that young adult learners can learn a foreign language through spoken language, working in groups, using hands-on materials, and learning through visual materials. The findings also indicated that most respondents agreed that they could gain more flexibility and adaptability (57.7%), problem-solving skills (56.7%), media and technology literacies (54.8%), critical thinking skills (54.8%), information literacies (53.8%), and communication skills (53.8%), respectively, during the project work. The study of Akindele (2012) stated that although the students admitted there were conflicts while working as a group, they were encouraged to become creative, gain better self-esteem, and face and solve difficult problems during the project work. Therefore, PBL provides an opportunity for learners to learn and model the skills for future living to achieve valuable goals of education.

Furthermore, the qualitative data collected from a semi-structured interview supports the effectiveness of the PBL approach in the class. Participants were positive about using PBL and found that it offered valuable assistance, delivered informative content, and provided a distinctive and enriching learning experience. Also, interviewees emphasized that PBL significantly contributed to conceptual understanding, offering opportunities for supplementary learning, increased interaction, and heightened engagement during instructional hours. Likewise, T2 is an active teacher with a PGDE in English and 14 years of teaching experience. She implemented PBL for the first time at the time of the interview. Right

at the beginning of the interview, T2 reflected on her changing role as a teacher, a guide on the side rather than a sage on the stage (King, 1993). Also, T2 shared her views:

> I find the PBL approach differs from traditional teaching methods. In PBL, the learners were actively engaged in hands-on research and focused on their projects. This approach enhances language skills by including critical and creative thinking.

Similarly, T1 did an M.A in English and shared his view:

> "I am amazed by the depth and the richness of the project, you see I have a lot of satisfaction, in teaching using the PBL approach".

Wangdi (2016) stated that teachers in the country introduced the Kagan Structure, a cooperative learning pedagogy on July 13th, 2016. However, the teacher participants shared their views that teachers never implement such a teaching strategy and still found teachers are using the traditional teaching method. Similar findings have been consistent in literature with Dorji (2013), Macharia et al. (2009), and Al hajj et al. (2009) teachers followed the lecture method in the classroom. This finding also corresponds to the study by Rabgay (2018) that the teachers in Bhutan still employ traditional teaching methods. For instance, the report by the Bhutanese Educational Initiatives and Royal Educational Council (2010) argued that many Bhutanese teachers practice more procedural teaching than teaching for students' comprehension. They hardly use innovative skills or constructivist approaches in the classroom. These were possible reasons stated for the learners' poor academic achievement.

Lastly, the researcher found that PBL enhances English and 21st-century skills despite encountering challenges during project work. PBL enhanced a positive perception of English improvement and allowed them to solve the problems that had occurred. Similarly, Febriana (2017) concluded that the application of PBL in a class can positively improve the social behaviors and learning outcomes of students. Thus, the PBL to the English class allows learners to experience authentic situations of learning for which they need to integrate a variety of skills, knowledge, and language skills. The participants had shown a positive perception of the current approach in learning procedures.

CONCLUSION

This study concluded that the learners' motivation in learning English using PBL approach was statistically significantly higher for post-intervention compared to the baseline. Moreover, the finding encourages English teachers to use the teaching approach to raise the bar of students' potential in English and other subjects. Further, future teacher researchers should increase the sample size and grade levels to produce additional proof to actualize the effects of PBL.

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References

1. Akindele, D. O. (2012). Enhancing Teamwork and Communication Skills among First Year Students at the University of Botswana. *TESOL Journal, 6*, 2-15.
2. Al-Hajj M, Kahlot A, Obeyed AQ, Abu Talib S 2009. *Classroom management and organization*. Amman: Al-Quds Open University Publications.
3. Balkı-Girgin, A. (2003). *Proje temelli öğrenme yönteminin özel Konya Esentepe ilköğretim okulu uygulanmasına yönelik bir değerlendirme.* Unpublished master's thesis. Selçuk Üniversitesi Sosyal Bilimler Enstitüsü, Konya.
4. Baş, G., & Beyhab, O. (2010). Effects of multiple intelligences supported project-based learning on students' achievement levels and attitudes towards English lesson. *International Electronic Journal of Elementary Education*, *2*(3), 365-386.
5. Baş, G. (2011). Investigating the effects of project-based learning on students' academic achievement and attitudes towards English lesson. *The online journal of New Horizons in Education*, *1*(4).
6. Bayraktar, V. H. (2015). Project Based Learning Approach. *The Journal of International Social Research, 8*(37). 22-56.
7. Bell, S. (2010). Project-based learning fo the 21st century: Skills for the future. *The Clearing House, 83*, 39-43.
8. Blank, W. (1997). Authentic instruction. Blank, W. E. and Harwell, S. (Eds.). *Promising practices for connecting high school to the real world.* Tampa, FL: University of South Florida.
9. Çırak, D. (2006). *The use of project based learning in teaching English to young learners*. Unpublished master's thesis. Selçuk Üniversitesi Sosyal Bilimler Enstitüsü, Konya.
10. Çiftçi, S. and Sünbül, A. M. (2006). Sosyal bilgiler öğretiminde proje tabanlı öğrenmeyi kullanmanın öğrencilere etkisinin çeşitli değişkenler acısından incelenmesi. Selçuk Üniversitesi Eğitim Fakültesi Dergisi, 21- 22, 309-326.
11. Cooke, M., & Moyle, K. (2002). Students' evaluation of problem-based learning. *Nurse Education Today*, 22, 330-339. https://pubmed.ncbi.nlm.nih.gov/12030754/
12. Coufalova, J. (2006). *Projektove vyucovai*. Praha: Nakladatelstvi Fortuna.
13. Creswell, J. W. (2012). *Research design: Qualitative, quantitative, and mixed methods.* Sage, Incs.
14. Creswell, J. W. (2013). Steps in conducting a scholarly mixed methods study.
15. Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE publications.
16. Demirel, Ö., Başbay, A., Uyangör, N. and Bıyıklı, C. (2000). Proje tabanlı öğrenme modelinin öğrenme sürecine ve öğrenci tutumlarına etkisi. *IX. eğitim bilimleri kongresi bildirileri*. Abant İzzet Baysal Üniversitesi Eğitim Fakültesi, Bolu
17. Dewey, J. (1938). Experience and education. Macmillan
18. Dorji, K. S. (2013). Bhutanese teachers' pedagogical orientation in the primary classes: *A Factor on Quality Education . Jiste vol. 17, no. 1*, 18-20.
19. Dorji, C. (2019). *The use of project-based learning approach in teaching science to grade vi students in a Bhutanese classroom* (Doctoral dissertation, Rangsit University).
20. Erdem, M. (2002). Proje tabanlı öğrenme. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 22*, 172-179.
21. Essien, A. M. (2018). The Effect of Project-Based Learning on Students' English Language Ability. *The 2018 International Academic Research Conference in Vienna*. 438-443

22. Febriana, R. (2017). The Effectiveness of Project Based Learning on Students' Social Attitude and Learning Outcomes. Journal Pendidikan Teknologi dan Kejuruan, 23(4), 374-382
23. Frey, K. (1996). *Die project methode*. Weinheim: Beltz.
24. Greene, J. C. (2006). Toward a methodology of mixed methods social inquiry. *Research in the Schools*, *13*(1), 93-98.
25. Gultekin, M. (2005). The Effect of Project Based Learning on Learning Outcomes in the 5th Grade Social Studies Course in Primary Education. *Educational Sciences: Theory & Practice*, *5*(2), 548–556.
26. Harris, J. H. and Katz, L. G. (2001). *Young investigators: The project approach in the early years.* Teachers College Press.
27. Killen, R. (2009). *Effective Teaching Strategy: Lesson from research and practice (5th ed.).* https://www.scirp.org/(S(i43dyn45teexjx455qlt3d2q))/reference/ReferencesPapers.aspx?ReferenceID=1412301
28. King, A. 1993. From Sage on the Stage to Guide on the Side. *College Teaching*, *41* (1), 30-35.
29. Klein, J. I.,Taveras, S, King, S. H., Commitante, A, Curtis-Bey, L, & Stripling, B. (2009). Project based learning: Inspiring middle school students to engage in deep and active learning. NYC Department of Education.
30. Knowles, J. G., Cole, A. L., & Sumsion, J. (2000). Modifying conditions of researching in teacher education institutions. *Teacher Education Quarterly*, 7-13.
31. Korkmaz, H. (2002*). Fen egitiminde proje tabanlı ogrenmenin yaratıcı duunme, problem çozme ve akademik risk alma duzeylerine etkisi.* Doctoral dissertation. Hacettepe Universitesi Sosyal Bilimler Enstitusu, Ankara.
32. Ma, S., and Yang, X. (2021). Cooperative reasoning learning to promote the development of higher-order thinking. *Educ. Dev. Res*. 24, 64–73. doi: 10.14121/j. cnki.1008-3855.2021.24.011
33. Macharia, K., Githua, B., Mboroki, G., (2009). Methods of instructions. *Kijabe: Kenya.*
34. Merriam, S. B. (2015). Qualitative research: Designing, implementing, and publishing a study. In *Handbook of research on scholarly publishing and research methods* (pp. 125-140). IGI Global.
35. Liu, M. (2004). Examining the performance and attitudes of sixth grades during their use of a problem-based hypermedia learning environment. *Computers in Human Behaviour*, 20, 357-379. https://www.researchgate.net/publication/222673678_Examining_the_performance_and_attitudes_of_sixth_graders_during_their_use_of_a_problem-based_hypermedia_learning_environment
36. Markham, T., Larmer, J., & Ravitz, J. (2003). Project-based learning handbook: A guide to standards focused project-based learning for middle and high school teachers. Novato, CA: Buck Institute for Education.
37. MoE. (2020). *Bhutan Professional Standards for Teachers*. Thimphu, Bhutan: MoE. http://www.education.gov.bt/index.php/bhutan-professional-standards-for-teachers-released/
38. Moss, D. & Van Duzer, C. (2005). Project-based learning for adult English language learners. http://www.cal.org/caela/esl_resources/digests/ProjBase.html
39. Morrison, J. (2004). Where now for problem based learning? *The lancet*, 363-174. https://pubmed.ncbi.nlm.nih.gov/14726191/
40. Natividad, A. D. & Batang, B. L. (2018). Student Perceptual Learning Styles and Attitudes Towards Communicative Language Teaching. *TESOL International Journal*, *13*(4), 104-120.

41. Rabgay, T. (2018). The effect of cooperative learning method on tenth grade students' learning achievement and attitude towards Biology. *International Journal of Instruction, 11*(2), 265-280. https://www.researchgate.net/publication/324173096
42. Royal Education Council. (2009). *The quality of school education in Bhutan-reality and opportunities.* Thimphu: Bhutan.
43. Royal Education Council & Educational Initiatives. (2010). *Bhutan's annual status of student learning.* Thimphu, Bhutan: Educational Initiatives Pvt. Ltd https://www.rec.org.bt.
44. Segers, M., Van den Bossche, P., & Teunissen, E. (2003). Evaluating the effects of redesigning a problem-based learning environment. *Studies in Educational Evaluation*, 29, 315-334. Retrieve from: https://core.ac.uk/download/pdf/231259237.pdf
45. Thomas, J. W., Mergendoller, J. R. and Michaelson, A. (1999). *Project-based learning: A handbook for middle and high school teachers.* Novato, CA: The Buck Institute for Education.
46. Thomas, J. W. (2000). A review of research on project-based learning. San Rafael, CA: Autodesk Foundation
47. Wangdi, T. (2016, July 7). Teachers introduced to transformative pedagogy. *Kuensel-Bhutan's National Newspaper*, p. 4.
48. Yurtluk, M, (2003). *Proje tabanlı öğrenme yaklaşımının matematik dersi öğrenme süreci ve öğrenci tutumlarına etkisi.* Unpublished master's thesis. Hacettepe Üniversitesi Sosyal Bilimler Enstitüsü, Ankara.

Appendix A
English Achievement Test (EAT)

1. In the story, the narrative perspective used is

A. First person narrative.
B. First person omniscient.
C. Third person objective.
D. Third person omniscient.

2. The intention of the story is to

A. Teach a moral lesson.
B. Make the readers laugh.
C. Give the readers information about animals.
D. Make the readers aware of how to manage a zoo.

3. The effect of the rubber elephant's unexpected flight on the pupils who witnessed it is they

A. Slipped back in their schoolwork and became hooligans.
B. Became more interested in their schoolwork.
C. Were inspired to become zookeepers.
D. Formed a club to study wildlife.

4. The Director wanted the rubber elephant to be very large because he wanted to

A. impress visitors with its size.
B. receive a bonus for the successful idea.
C. compensate for the lack of real animals.
D. showcase the zoo's commitment to conservation.

5. The Director's attitude towards animals in the zoo is

A. affectionate and caring.
B. indifferent and negligent.
C. opportunistic and self-serving.
D. supportive of educational functions.

6. Explore the following features from the story:

A. Irony
B. Personification
C. Satire
D. Hyperbole

7. What led to the Director's decision to acquire an elephant for the zoo?
8. What is the connotative meaning of an Elephant in our Bhutanese context?
9. Complete the following table of literal and symbolic meanings:
10. Which animal would you choose to be and why?
11. Justify on how this story can be considered as Contemporary Realistic Fiction.
12. If you ever encounter with the author of the story, what would you ask him? Why?
13. Explain how the Director wanted to swap the real elephant with a fake one made of rubber.
14. How did the workers try to fill up the rubber elephant, and why did they resort to using gas?
15. Imagine you are one of the students visiting the zoo, write a report of 100 words on your experiences/ observations at the zoo. Ensure to follow the report writing format.
16. How is the communist government different from the political form of the government? Comment.
17. Justify on the title of the story.
18. Whose character plays the most important role in the story? How?
19. Write down five relevant quotes as per the theme of the story in Dzongkha and translate it in English.
20. Which one scene in the story was more deceitful according to you? Comment.
21. As the director of the zoo, what would you have done after knowing that the rubber elephant got punctured?
22. What do you mean, “it is easy to fill with gas”?

	Literal meaning	**Symbolic meaning**
1		The country Poland
2	Animals with different problems in zoo	
3	The school children	
4		The deceiving and deception involved in government’s manifestos and policies
5	The officials	
6		Corrupted officials who supports the boss irrationally and blindly
7	The teacher	
8	Misbehaving students	
9		Representing the communist government
10		The common innocent people of the country

s/no	Items	5	4	3	2	1	Level
1	Participating in PBL helps me think and read more critically.						
2	Participating in PBL wastes my time.						
3	Participating in PBL helps me learn English.						
4	Participating in PBL hinders my learning.						
5	Participating in PBL broadens my knowledge of life.						
6	I feel that participating in PBL is boring.						
7	I am more motivated when I participate in PBL.						
8	Participating in PBL is a burdensome experience.						
9	I am stressed when I participate in PBL.						
10	Participating in PBL makes me proud of myself as being a helpful participant.						
11	Participating in PBL, I can communicate my ideas clearly.						
12	I would rather take a test than complete a test project or make a presentation in English class.						
13	Participating in PBL, I can cope with my problems and information.						
14	Participating in PBL expands my idea and helps me think critically.						
15	If I am a teacher, I will not employ this teaching method.						

23. If you were one of the teachers, what possible explanation would you give to your students after they witness the elephant flying in the air?
24. The story ends in a negative note where the students lose faith on elegance. Rewrite the ending of the story in a positive way.
25. Mention some of the humorous remarks you have enjoyed in the story.

Appendix B
Survey Questionnaire form

Dear students,

Your authentic feedback is invaluable in ensuring the success of study. Your identity remains entirely confidential.

Attitudes towards participating in PBL of students in the experimental group

Appendix C
Semi-Structured Interview Questions

1. How would you describe your overall experience with Project-Based Learning in the English classroom?
2. In your opinion, how has the Project-Based Learning approach influenced your academic achievements in English?
3. Can you share specific examples of projects or activities that you found particularly effective in enhancing your understanding of English concepts?
4. How do you believe Project-Based Learning has contributed to your motivation and engagement in English lessons?

5. From your perspective, what aspects of the Project-Based Learning approach have positively impacted your attitude towards learning English?
6. What challenges, if any, have you encountered while engaging in Project-Based Learning, and how did you overcome them?
7. In your view, how does the Project-Based Learning approach differ from traditional teaching methods in terms of improving English language skills?
8. How would you suggest incorporating Project-Based learning more effectively into English language education based on your experiences?