Effects of Project-Based Learning on EFL Learners' Engagement in Writing Class

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Abstract

Connecting language classrooms with project-based learning might be the potential framework for enhancing EFL learners' engagement in writing classes. However, investigating whether project-based learning, as a new field within ELT with unique pedagogical affordances, can enhance learners' engagement in writing class is still lacking in the literature. Accordingly, this study aimed to investigate the effect of project-based learning on EFL learners' engagement in writing classes. The study employed a single-group pretest-post-test quasi-experimental design. Twenty-three third-year EFL undergraduate students enrolled in the Advanced Writing Skills I course were selected using a comprehensive sampling method. The data were gathered through a self-reported survey and an interview and analyzed through a paired sampled t-test, and narration. The data gained from the self-reported survey indicated that students showed higher engagement levels while learning writing through project-based learning. In addition, interview data showed that students feel optimistic about Project Based Learning in their engagement in writing class. The findings revealed that project-based learning enhances students' engagement in writing classes. Therefore, project-based learning is suggested to improve students' engagement in writing classes by increasing their behavioral, cognitive, and emotional engagements, which are particularly important in learning.

1. Introduction

Writing is a crucial skill for students to succeed academically and professionally. Hyland (2007) says that nowadays the world is driven by text and numerical data, and writing is picked first as one of the essential process skills in this world. Even in academic settings, It plays a crucial role in EFL education as it enables students to express their thoughts, ideas, and emotions effectively in written form. He adds that teaching writing has taken on a far more significant role in the field of teaching second and foreign languages than it did twenty or thirty years ago. However, the complex nature of writing, including organizing ideas, structuring paragraphs, and incorporating appropriate language conventions, presents difficulties for EFL learners at various academic levels. Ahmed and Salih (2019) and later Irzawati, Hasibuan and Giovanni (2021) stated that in writing, EFL learners face a range of challenges compounded by limited knowledge of grammar and vocabulary, lack of practice and motivation, and unsatisfactory writing skills. These and other studies suggest that writing improves with practice, and active participation keeps learners engaged in the teaching-learning process. When students actively participate in writing exercises, discussions, and workshops, they are more likely to stay focused and interested in the subject; in addition, active participation provides students with many opportunities to practice writing in various forms, such as essays. Many studies have identified and underscored the need to implement effective strategies to facilitate students' engagement and writing development.

The definition given and the methods used for measuring engagement vary and have changed over time. People have given different names for engagement, such as student participation, academic participation, student involvement, academic involvement, involvement in school assignments, and involvement. Even though it was not satisfactory to measure learners' engagement, it started with the provision of eye contact with the academic content. However, later and more recently, emotional reactions have been included and have played a crucial role in the definition of engagement. Meanwhile, in the second and foreign language arena, Ellis's (2010) definition of student engagement can be considered as the most articulated definition of the time. He stated that student engagement should be seen and evaluated from cognitive, behavioural, and attitudinal perspectives. In addition, Fredricks, Blumenfeld, and Paris (2004) defined student engagement as the active participation of students in obeying regulations, being severe in doing something, concentrating, trying, and paying attention in the teaching and learning process. Others such as Suh and Suh (2006) stated that engagement is the quality of contact or participation of students with the efforts shown in the school, which covers social relationships, activities, goals' values, and the environment. Skinner, Kindermann and Furrer (2009) also defined engagement as the quality of effort shown by students in educational activities that contributes to expected outcomes.

In general education, however, Fredricks, Blumenfeld, and Paris (2004) proposed a model that includes the three dimensions of student engagement: cognitive, behavioural, and emotional engagement. Behavioural engagement can be defined as the active, goal-driven, flexible, constructive, and persistent interaction of students in the academic setting. It includes participation in school-related activities, involvement in academic and learning tasks, positive conduct, and the absence of disruptive behaviours such as planning, effort, on-task attention, concentration, hard work, persistence, time expended, attendance, voluntary participation, task involvement, and following classroom rules and norms. On the other hand, the definition of cognitive engagement is rooted in personal investment, self-regulation, and striving for mastery beyond the requirements. Moreover, Emotional engagement consists of relationships with teachers, peers, and academics. Hence, students' engagement should encompass these areas; their level of engagement depends on the extent to which they are engaged in these areas.

Consequently, to keep students engaged in the learning process in an interactive and meaningful way, teachers are expected to vary their instructional activities. The use of differentiated instruction may ask the teacher to select specific types of activities based on individual learners' interests, characteristics, learning styles, the materials available and other contextual elements. Studies came to realize that whole-group lecture-based lesson plans are the least effective way to teach and engage students; many teachers nowadays move to differentiated lessons (Bender, 2017). To give credit to different learning styles, address the needs of students, and get them involved in the lesson, differentiated instructional organizational approaches, including project-based learning, have been given due attention. In education and research, project-based learning has received much attention over the past few decades.

Project-based learning, based on constructivism theory, is an educational technique traced back to John Dewey's "learning by doing" method. It is a student-centred approach that involves completing open-ended projects in teams (Fernandez and Williamson, 2003). It is a technique that uses projects to develop the learning process (Thomas, 2000). As described by Blumenfeld, Soloway, Marx, Krajcik, Guzdial, and Palincsar, (1991), project-based learning is an approach that emphasizes instructing by having students engaged in investigations, which allows them to be fully engaged and take initiative. In addition, Beckett (2002) defines project-based learning as an extended effort that comprises a range of individual and group activities, such as establishing research questions and plans and carrying them out via practical or document research, which entails gathering and documenting data verbally and in writing. So, project-based learning is a collaborative learning approach where students study and solve real-world issues to produce a concrete product or solution.

Several previous studies that employed varied research designs found the positive effects of project-based learning on students' engagement and learning outcomes. They stated that project-based learning can enhance student learning outcomes, such as motivation, academic success, and higher-order thinking abilities. For instance, a study conducted by Zhang (2022) showed that there were significant differences in students' interest, autonomy, and competence before and after, which positively influenced students' intrinsic motivation to learn; Biazus and Mahtari (2022) conducted a quasi-experiment using project-based learning and traditional instructional learning models and found that the PBL model significantly enhances the creative thinking skills of secondary school learners. Parrado-Martínez and Sánchez-Andújar (2020) also explored whether PBL had an impact on ninth-grade students' writing skills and found that it potentially promoted students' critical thinking, communication, and collaboration skills. Astawa, Artini, and Nitiasih (2017) suggested the positive impact of project-based learning on EFL students' productive English skills, including speaking and writing. These studies collectively highlight the potential of project-based instruction to enhance EFL students' engagement and learning outcomes.

Some other studies, however, yield even more adverse or undifferentiated effects of project-based learning on students' engagement compared to traditional whole-group lecture-based instruction. The study by García-Rodríguez, Martínez-Rojas, and Mora-García (2021) to test the effectiveness of a student-centred project-based learning approach in promoting student skill acquisition, Gratchev and Jeng (2018) explored whether the combination of traditional teaching methods and project-based learning activities improves students' learning experiences, Parrado-Martínez and Sánchez-Andújar (2020) to see the implementation of project-based learning on students' perceived utility of teamwork, communication, and creativity, Kizkapan and Bektass (2017) examination of the effects of project-based learning and

traditional learning methods on academic performance showed that project-based learning did not significantly increase student engagement.

In Ethiopia, although there was an emerging inclination towards learner-centred approaches, the educational landscape is dominated by teacher-led methods, and writing guidelines suggest that students must be more involved in their education and acquire the ability to write in multiple genres. However, a lot of EFL writing instructors in Ethiopia are primarily teacher-centred and concentrate on explicit grammar and vocabulary instruction rather than project-based learning. When the researcher taught ELT courses, it became evident that there needed to be more interest in writing classes at the school where the study was done. Along with the researcher, many educators expressed dissatisfaction with their pupils' lack of engagement in their EFL classes. They stated that many academic writing tasks needed to be more participatory. To be more specific, only some high-achieving students did tasks. There was no cooperation or sharing of tasks in the group. Moreover, numerous researchers' conclusions corroborate the researcher's experiences and those of other educators. Thus, as there is a need to investigate innovative educational strategies that can improve EFL students' engagement in writing classes in the local context, this study aimed to investigate the effect of project-based learning on EFL students' engagement in writing classes.

Considering the already heated discussion on the effectiveness of project-based learning applications and fill the current knowledge gap on project-based learning, this study is designed to investigate the following research question: Does project-based learning significantly improve students' engagement in writing classes?

2. Literature Review
2.1 The Concept of Project-Based Learning
The ideas of early 20th-century educator John Dewey, who advocated "learning by doing," are where project-based learning got its origins. William Heard Kilpatrick refined this strategy further by introducing a significant essay called "The Project Method," which emphasized student-centred projects and reinforced the importance of active learning in school. As described by Beckett (2002), project-based learning is an extended effort that comprises a range of individual and group activities, such as establishing research questions and plans and carrying them out via practical or document research, which entails gathering and documenting data verbally and in writing. So, it is a collaborative learning approach where students study and solve real-world issues to produce a concrete product or solution. In addition, Blumenfeld et al. (1991) stated that project-based learning is an approach that emphasizes instructing by having students engaged in investigations, which allows students to be fully engaged and take initiative. Thus, in project-based learning, learners engage with their peers in investigating and solving real-life problems.

Moreover, numerous writers have explained the essential elements and stages of project-based learning. For instance, Larmer, Mergendoller, and Boss (2015) have compiled lists of essential project design elements, including a challenging problem or question, sustained inquiry, authenticity, student voice and choice, reflection, critique and revision, and a final public product. In addition, Nuntasukan and Yuthong (2014) outlined project-based learning steps such as preparation, topic definition and selection, project layout, project implementation, presentation, and evaluation. Accordingly, project-based learning has unique elements and steps that should be used in its application.

2.2 Factors Influencing Engagement in Project-Based Learning
Engagement levels among EFL learners can vary based on a multitude of factors, including the teaching approach, classroom environment, individual learner characteristics, and cultural context. A range of factors influence EFL learners' engagement levels. Guilloteaux (2016) found that student engagement was higher in activities perceived as essential and when students felt competent, with teacher-centred lessons showing lower engagement. Interactive and communicative approaches that encourage active participation tend to foster higher levels of engagement. Teacher-student relationships also play a crucial role, with Gan (2021) highlighting the importance of positive relationships and contextual factors. A supportive and inclusive classroom environment that promotes collaboration, respect, and positive relationships among learners and between learners and teachers can contribute to higher engagement levels. Saukkonen (2014) further emphasizes the importance of real-world application in project-based learning, showing that engaging live projects can enhance the learning experience and student engagement. Authentic projects simulate real-world scenarios or address genuine issues, making learning more meaningful and engaging for students. Hence, by creating a supportive and stimulating learning environment, teachers can empower EFL learners to actively engage in the language learning process and achieve their learning goals.

3. Methodology
3.1 Research Design
This study investigated the impacts of using project-based learning on EFL students' engagement in writing classes. To meet this objective, the researcher used a quasi-experimental design that employed a pretest-posttest design with single-group participants for the study. Quasi-experimental designs, such as the pretest-posttest design, are commonly used in various fields. These designs can be used to demonstrate causality between an intervention and an outcome, particularly in natural settings where randomization is not feasible (Krishnan, 2019). In these cases, the researcher utilizes a quasi-experimental design to study the effects of project-based learning on EFL learners' engagement in writing classes.

3.2 Participants and Sampling Techniques
All third-year EFL learners enrolled in the Advanced Writing Skills I course participated in the study. The school was selected based on convenience sampling. The learners were selected based on a comprehensive sampling method, and for the interview, participants were selected randomly from their working groups.

3.3 Data Gathering Instruments
Questionnaires and semi-structured interviews were used to gather the required data. The questionnaire was a self-reported survey adapted from Fredricks et al. (2004) and contained 30 items for all three engagement types. To assess the internal consistency of the questionnaire, the researcher used Chrombach Alpha. Hence, the questionnaire has a Cronbach Alpha value of 0.752, which suggests that the scale demonstrates a reasonable level of internal consistency. Supervisors of the study and other two PhD students from the TEFL department checked the reliability and validity of the test and interview questions. A semi-structured interview was also used with three randomly selected students to get their feelings and more elaborate feedback regarding the practice of project-based learning in their writing classes.

3.4 Data Collection Procedures
Participants involved in the study were provided with detailed information about the nature and purpose of the study, their voluntary agreement to participate was documented, and informed consent was obtained from them. The confidentiality and welfare of the participants were prioritized throughout the research process. The experiment continued for a total of six weeks. The data collection went with some steps. Before the study, the research participants were exposed to other sections of the course through the conventional method. In the data collection stage, the project was first prepared by the researcher and students, who employed the principles of the project-based learning method. Then, the pre-test was administered to the students to identify their engagement in writing classes before the intervention. Following the pre-test, the intervention was given. The intervention was a project-based learning essay writing instruction delivered for six weeks. During this time in the teaching-learning process, students do their tasks, from selecting the project topic to the last stage of evaluating the result and their journey. Next to the completion of the project, the participants were given a post-test, which was like the pre-test. The post-test was needed to determine whether the project-based learning made improvements in students' engagement. By the completion of the post-test, a semi-structured interview had been conducted.

3.5 Data Analysis Techniques
A descriptive statistic and then a paired sample t-test were used to determine whether the mean difference between the pre-test and post-test was significantly different from zero. In addition, the semi-structured interview results were thematically narrated.

4. Results
4.1 Self-Report Survey Questionnaire Results of Students' Engagement in Writing Classes

Table 1 Mean comparison of students' engagement

Paired Samples Statistics						
Pairs		Items	Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Behavioural Engagement	Pre-intervention	2.06	23	.19002	.05270
		Post-intervention	3.81	23	.30530	.08468
Pair 2	Cognitive Engagement	Pre-intervention	1.59	23	.26628	.07385
		Post-intervention	4.19	23	.38855	.10776
Pair 3	Emotional Engagement	Pre-intervention	2.04	23	.24653	.06838
		Post-intervention	3.89	23	.41934	.11630

Table 1 shows that the mean behavioural engagement of students increased from 2.06 before the intervention to 3.81 after the intervention. Similarly, the mean cognitive engagement of students increased from 1.5934 before the intervention to 4.19 after it. Again, the mean emotional engagement of students increased from 2.04 before the intervention to 3.89 after the intervention. These results indicate that project-based learning had a significant positive effect on all three types of engagement (behavioural, cognitive, and emotional) among EFL students in the writing class. This method is effective in enhancing students' overall engagement in learning to write.

Table 2 Paired samples test results of students' engagement

Paired Samples Test							
Pairs	Item	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
Pair 1	Behavioural Engagement Pre- and Post-intervention	1.81	.42110	.11679	15.525	22	.000
Pair 2	Cognitive Engagement Pre- and Post-intervention	2.59	.54973	.15247	17.010	22	.000
Pair 3	Emotional Engagement Pre- and Post-intervention	1.85	.47442	.13158	14.096	22	.000

The paired samples test table, Table 2, provides further statistical analysis to support the interpretation of the data regarding the effect of project-based learning on EFL students' engagement in a writing class. There was a statistically significant difference in behavioural engagement scores between the pre-and post-intervention phases (M = 1.81, SD =.42110), t (22) = 15.525, p <.05 (two-tailed). Project-based learning had a substantial positive impact on students' behavioural engagement in the writing class. Therefore, the null hypothesis has been rejected, and the alternative hypothesis has been retained.

Similarly, there was a statistically significant difference in cognitive engagement scores between the pre-and post-intervention phases (M = 2.59, SD = .54973), t (22) = 17.010, p <.05 (two-tailed). Project-based learning had a substantial positive impact on students' cognitive engagement in the writing class. Therefore, the null hypothesis has been rejected, and the alternative hypothesis has been retained.

Likewise, there was a statistically significant difference in emotional engagement scores between the pre-and post-intervention phases (M = 1.85, SD = .47442), t (22) = 14.096, p <.05 (two-tailed). Project-based learning had a substantial positive impact on students' emotional engagement in the writing class. Therefore, the null hypothesis has been rejected, and the alternative hypothesis has been retained. In summary, the paired samples test confirms that project-based learning had a significant positive effect on all three types of engagement (behavioural, cognitive, and emotional) among EFL students in the writing class, further validating the initial interpretation of the data.

4.2 Interview Results of Students

The data from the semi-structured interview revealed several key themes and insights related to the effect of project-based learning on EFL learners' engagement in writing classes.

One prominent theme that emerged from the interviews was students' experience with Project-based learning lessons. Students consistently highlighted the application of project-based learning, indicating its tremendous significance in writing classes. For example, one student says, "My experience with project-based learning in EFL writing has been enriching for me and my classmates. I have seen a remarkable improvement in my writing skills and overall engagement. For instance, I have engaged in a project called "How to Make our Campus Clean," where we researched and drafted an essay which allowed us to practice writing and research skills."

Another important theme that surfaced during the interviews was students' engagement in a writing class while learning through project-based learning. Students expressed their active participation in lessons by asking and answering questions, playing their roles in their group, and suggesting the role and impact of project-based learning in engaging learners in the learning process. A notable example is, "As a student in a writing class, I actively contribute ideas, ask questions, and complete assigned writing tasks on time to the best of my ability. I also seek feedback and constructive criticism on my writing and provide thoughtful feedback to my peers."

The third theme that emerged from the interview data was how project-based learning enhances student engagement. Students stated that project-based learning provides hands-on experiences, taps into intrinsic motivation, and fosters autonomy and ownership over the learning process, underscoring the importance of the method in encouraging students in several ways. This could be seen in "As a result of my increased effort and focus on the assignment, learning via projects encourages me to work together with others in the group by offering opportunities for me to work closely with peers towards a common goal. This collaborative aspect enhances my social interactions. Project-based learning encourages creativity and autonomy, which makes me feel more, invested in the learning process."

The impact of PBL on students' attitudes towards writing was another theme identified from the interview data. Students said that increased enthusiasm, confidence, and motivation to engage with writing tasks, underscoring the relevance of the method in developing students' perceptions of writing tasks. This was clear from one student's response, saying, "Participating in project-based learning has had a profound impact on my attitude towards writing. Before engaging in project-based learning activities, I often approached writing assignments with a sense of reluctance and apprehension. However, through project-based learning, I have discovered a newfound appreciation for writing. Collaborating with peers has made the writing process more collaborative and enjoyable as we exchange ideas and provide feedback to one another. As a result, I now approach writing assignments with a greater sense of enthusiasm and confidence."

The last theme was the challenges that students faced while learning to write through project-based learning. Participants shared time management problems navigating group dynamics and ensuring effective collaboration among team members, underscoring the importance of being proactive and organized to maintain a positive learning environment. This was noticeable in the following extract: "When learning through project-based learning in writing class, one challenge was managing time effectively to complete the project while balancing other academic commitments."

In general, these themes paint a nuanced picture of the effect of project-based learning on EFL learners' engagement in writing classes and offer valuable insights into the teaching of writing. The findings suggest that project-based learning has a tremendous effect on students' engagement in writing classes.

5. Discussion

The study's purpose was to investigate the effect of project-based learning on EFL learners' engagement in writing classes. The results of the study assured the constructive effects of project-based learning on EFL learners' engagement in

writing classes. The data obtained from the self-report survey and interview showed that the students improved their level of engagement. As depicted in Table 1, the posttest mean in each engagement type was greater than the pretest mean. These results indicate that project-based learning had a significant positive effect on all three types of engagement in writing class. Reinforcing the idea mentioned, the paired samples test in Table 2 confirms the significant positive effect of project-based learning on engagement among EFL students in the writing class. Engaging in real-world projects can ignite learners' curiosity and enthusiasm for writing, leading to higher levels of engagement in the writing class.

Similarly, in the semi-structured interview, the students reported that while they were learning writing skills through project-based learning, they engaged in the topic, identification, gathering of data, asking people and others for information, writing as many drafts as possible, asking friends for comments, receiving feedback, and group discussions. These students' activities showed how project-based learning helped them get engaged in the teaching-learning process. It encourages active participation and collaboration among EFL learners as they work together to solve problems, explore topics, and create products. This collaborative aspect can enhance peer interaction, communication skills, and a sense of belonging in the writing class.

These findings were concurrent with previous project-based learning studies which have demonstrated the connection between project-based pedagogy and increased student engagement. For instance, Wurdinger et al. (2007) reported high levels of engagement when allowing students to have some freedom in selecting learning experiences, noting that students learn from the challenges they face when they design projects and problem-solve. In addition, De Jong (2019) examined the impact of project-based learning on student engagement in a world studies class and found an increase in engagement and in higher-order thinking skills when compared to traditional instructional approaches. The study by Grant (2017) indicated that project-based learning appeared effective at creating opportunities for meaningful interactive language use, and students were comfortable with their autonomous role within the project. Similarly, Lee (2012) reported that project-based learning can improve student engagement in English language classrooms. Because project-based learning tasks are designed to be relevant and authentic, they allow EFL learners to apply their language skills in meaningful contexts, which often fosters intrinsic motivation among EFL learners by providing them with opportunities to work. Thus, this study revealed that project-based learning resulted in high levels of student engagement.

6. Conclusion

This study was aimed at investigating the effects of project-based learning on EFL learners' engagement in writing classes. Due to the objectives of this research, quantitative and qualitative methods were applied to collect and interpret the results. The implementation of project-based learning resulted in increased engagement among EFL learners in writing classes. This engagement could manifest in various forms, such as increased participation, motivation, and interest in writing tasks. It facilitated collaboration and communication among EFL learners. Working on projects in groups allowed students to exchange ideas, provide feedback to one another, and enhance their communication skills. Through repeated practice and meaningful language use in project tasks, students may improve their writing skills over time. The findings suggest that project-based learning positively influences EFL learners' behavioural, cognitive, and emotional engagement in writing classes. It offers a dynamic and interactive approach to language learning, promoting active participation and fostering a positive learning experience. This finding underscores the potential benefits of integrating project-based learning into EFL writing instruction, emphasizing its role in enhancing engagement and collaboration among learners.

In this research, the students viewed project-based learning as enhancing engagement as it exposed them to meaningful, authentic, and relevant tasks. Thus, the researchers suggest that EFL teachers and material developers consider the incorporation of project-based learning tasks to bolster learners' engagement in their classes. However, longitudinal studies are also needed to explore the long-term effects of project-based learning on learners' motivation, writing proficiency, and attitudes towards writing over time. Likewise, the effectiveness of project-based learning in promoting engagement may vary across different EFL contexts, such as different proficiency levels, age groups, or cultural backgrounds; further research is needed to investigate how these contextual factors influence the implementation and outcomes of project-based learning in diverse educational settings.

The findings of the study hold several pedagogical implications that can significantly influence teaching practices and curriculum design in EFL contexts. To begin with, it can provide evidence supporting the happy marriage between project-based learning and EFL writing. The study may also highlight specific aspects of project-based learning that enhance engagement among EFL learners. Teachers can incorporate project-based learning methodologies to promote engagement and enhance the writing skills of EFL learners. They can utilize these insights to design writing tasks that are meaningful, authentic, and relevant to learners' interests and experiences. Moreover, project-based learning often involves collaborative work, which can foster peer interaction and support among EFL learners. By embracing this innovative approach, teachers can create dynamic and enriching writing experiences that empower EFL learners to become proficient and confident writers.

The current study filled some research gaps in project-based learning and writing instruction, but it has some limitations. First, a limited number of participants targeted only one English skill. Thus, future research should include prominent participants in diverse settings with different writing proficiency levels. Researchers should also investigate other English skills, such as speaking, to confirm the present study's findings with other skills' findings. Another

significant limitation of the study is a one-group pretest-posttest design. Although it allows for the observation of changes in participants' performance over time, it lacks a control group or comparison group, and there was no randomization. Addressing these issues will significantly improve ELT through project-based learning, ensuring that it remains a relevant, innovative, and effective approach to English learning and teaching.

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