

Empowering EFL Learners Engagement through Project- Based Learning Activities

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Abstract. This study investigates how English as a Foreign Language (EFL) learners' engagement and language skills are affected by project-based learning (PBL). In three cycles, twenty-eight seventh-graders participated in the research, which used a classroom action research (CAR) design in partnership with an English teacher. Student surveys, observation checklists, performance evaluations, and qualitative comments from the teacher and the students were used to gather data. According to the findings, PBL significantly increases student involvement; by the end of the cycle, 85% of students had shown consistent participation. Notably, motivation also rose, with 90% of students indicating a greater desire to learn English. There were gains in language proficiency; speaking and writing scores increased from 60% and 55% to 85% and 80%, respectively. Qualitative data showed that students felt more confident and enjoyed their learning, and they valued the PBL activities' applicability to the real world. The study also revealed problems, like lower-proficiency students' issues and initial resistance to group work, resolved with focused scaffolding and assistance. The results demonstrate that PBL can be a proper pedagogical strategy for raising student motivation and language acquisition. They also support the usefulness of PBL in fostering a more dynamic and successful EFL learning environment. Future studies could examine PBL's long-term effects and use in various educational settings.

Keywords: EFL learners, learner engagement, project-based learning (PBL), student-centered approach

Abstrak. Penelitian ini menyelidiki bagaimana keterlibatan dan kemampuan bahasa pelajar Bahasa Inggris sebagai Bahasa Asing (EFL) dipengaruhi oleh pembelajaran berbasis proyek (PBL). Dalam tiga siklus, dua puluh delapan siswa kelas tujuh berpartisipasi dalam penelitian ini, yang menggunakan desain penelitian tindakan kelas (PTK) dalam kemitraan dengan guru bahasa Inggris. Survei siswa, observasi, evaluasi kinerja, dan komentar kualitatif dari guru dan siswa digunakan untuk mengumpulkan data. Hasilnya menunjukkan bahwa PBL secara signifikan meningkatkan keterlibatan siswa; pada akhir siklus, 85% siswa telah menunjukkan partisipasi yang konsisten. Khususnya, motivasi juga meningkat, dengan 90% siswa menunjukkan keinginan yang lebih besar untuk belajar bahasa Inggris. Terdapat peningkatan dalam kemahiran berbahasa; nilai berbicara dan menulis meningkat dari 60% dan 55% menjadi 85% dan 80%. Data kualitatif menunjukkan bahwa siswa merasa lebih percaya diri dan menikmati pembelajaran mereka, dan mereka menghargai penerapan kegiatan PBL ke dunia nyata. Penelitian ini juga mengungkapkan masalah-masalah, seperti masalah siswa yang memiliki kemampuan lebih rendah dan resistensi awal terhadap kerja kelompok, yang diselesaikan dengan scaffolding dan bantuan yang terfokus. Hasil penelitian menunjukkan bahwa PBL dapat menjadi strategi pedagogis yang tepat untuk meningkatkan motivasi dan penguasaan bahasa siswa. Hasil penelitian ini juga mendukung kegunaan PBL dalam menumbuhkan lingkungan belajar EFL yang lebih dinamis dan sukses. Penelitian di masa depan dapat meneliti efek jangka panjang PBL dan penggunaannya dalam berbagai lingkungan pendidikan.

Kata Kunci : Peserta didik EFL, keterlibatan peserta didik, pembelajaran berbasis proyek (PBL), pendekatan yang berpusat pada siswa

11 1. INTRODUCTION

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English as a Foreign Language (EFL) instruction is essential in providing students with the language proficiency and communication skills needed to succeed in various settings in the rapidly changing global landscape (Richards, 2015; Alrabai, 2014; Maulina, 2019; Maulina et al., 2022). In EFL classes, traditional teacher-centered methods frequently emphasize memorization and rote learning, which can cause students to become disengaged and

unmotivated (Nguyen, 2019). However, ⁸ Project-Based Learning (PBL) has become a popular student-centered method that stresses practical, hands-on learning through projects that are based in the real world (Thomas, 2000). Learners are given opportunities to interact, exercise critical thought, and apply language skills in relevant circumstances by incorporating PBL into EFL instruction (Beckett & Slater, 2005).

Learners must be engaged to acquire a language effectively. This directly impacts their motivation, perseverance, and general performance (Dörnyei, 2001). In addition to encouraging active engagement, PBL fosters independence, creativity, and problem-solving abilities, which are critical for learning a foreign language (Stoller, 2006; Nurhayati et al., 2024). PBL can improve language competency while meeting EFL students' various requirements and learning preferences by immersing them in real-world tasks and encouraging a sense of ownership over their education (Larmer & Mergendoller, 2015; Wahyudi et al., 2024; Nurhayani et al., 2024).

Although PBL has been extensively studied in various educational contexts, more is needed about its unique application in EFL settings, especially regarding how it affects learner engagement (Fragoulis, 2009). Studies frequently concentrate on the advantages of PBL for general education, leaving a vacuum in knowledge on how PBL tactics might be modified to optimize language learning results (Guo, 2020; Febiola et al., 2024). This project aims to close the gap between theory and practice by introducing new PBL exercises created explicitly for EFL learners.

Although PBL is becoming increasingly popular, little empirical data supports its claims that it may help EFL students become more engaged in various cultural and educational contexts (Alan & Stoller, 2005). Studies have yet to look at how PBL can improve learner motivation and active participation, even when students face difficulties like ¹⁴ limited exposure to English outside of the classroom or varying levels of language proficiency (Levy, 2016). Previous studies have emphasized the benefits of ²⁰ PBL in promoting language skills.

¹² This study aims to find out how well project-based learning activities boost the engagement of EFL students. In particular, this research attempts to (1) investigate how PBL affects learners' motivation and involvement, (2) pinpoint the essential components of PBL that improve language learning in EFL environments, and (3) suggest the most effective ways in which PBL should be applied in language classrooms to maximize learner engagement and results.

2. METHOD

This study's research methodology is based on a Classroom Action Research (CAR) design, to increase EFL learners' participation in PBL activities. This method uses a cycle model with planning, activity, observation, and reflection phases. It allows instructional tactics to be continuously improved depending on feedback received in real-time. The study's participants comprise 28 junior high school kids in the seventh grade, each with varied degrees of English ability, and an English instructor who works closely with the researcher for the entire investigation. Co-planning, executing lessons, and helping with data collecting are all part of the teacher's job description. A variety of instruments are used in this study to collect data, such as an observation checklist to track student interaction and engagement, field notes to document observations in the classroom, student questionnaires to gauge motivation and attitudes before and after the intervention, a semi-structured interview guide to get information from both students and the teacher, and student work artifacts like project outputs and presentations to evaluate language use and application of acquired skills.

Data was gathered throughout several cycles. During the planning stage, learning objectives were set, materials were prepared, and the teacher and researcher designed PBL activities. The planned activities were carried out during the action phase, with the teacher and researcher leading and facilitating the projects. The observation phase used field notes and observation tools to monitor students' participation and the conduct of PBL stages. During the reflection phase, the interventions' efficacy was assessed by analysis of the data gathered, which sparks conversations and changes for later cycles. Both quantitative and qualitative strategies were used in data analysis. While qualitative data from field notes, interviews, and students' work were evaluated thematically to highlight significant trends, obstacles, and accomplishments, quantitative data from students' questionnaires were quantitatively analyzed using descriptive statistics to measure changes in motivation and engagement. Triangulation was used by cross-referencing observation data, students' comments, and interview results to verify the validity and dependability of findings.

Students provided informed consent, and ethical issues were carefully considered. The study's goal, the participants' freedom to withdraw at any time, and the confidentiality of their data were all explained to the participants. The duties and role of the cooperating teacher were also made explicit. Overall, this research methodology guarantees a comprehensive and thoughtful approach to investigating how PBL affects EFL learners' participation in a genuine classroom environment.

3. RESULT

The implementation of Project-Based Learning (PBL) activities has consistently improved student involvement, motivation, and language competency, according to the quantitative data gathered across three cycles. According to observation checklists measuring engagement, only 50% of students actively participated in project work throughout the first cycle. As students grew more accustomed to the PBL process, engagement rose to 70% in the second cycle. By the third cycle, eighty-five percent of students were routinely participating in class, taking the initiative to initiate group discussions, offering ideas, and cooperating to complete project deliverables. The data indicates a favorable pattern as learners adjusted to the participatory and experiential learning setting established by project-based learning.

Pre- and post-intervention surveys revealed a notable improvement in student motivation. Just 45% of students said they were motivated and interested in studying English before PBL was introduced, and they frequently criticized traditional techniques for being tedious and repetitious. However, 90% of students reported feeling more motivated after participating in PBL activities, with the practical projects and English's real-world applications being cited as important contributing reasons. Students said that completing interesting assignments increased their enjoyment of the material and gave them a better understanding of how ¹⁰ the language is used in real-world situations outside the classroom.

Evaluations of students' work in terms of language competency showed significant advancements in speaking and writing abilities. Students' average scores on writing tests increased from 60% ² in the first cycle to 75% in the second cycle and 85% in the third. Sentence organization, word use, and coherence all showed improvement. Speaking evaluations conducted during project presentations also revealed confidence, fluency, and clarity improvements. By the end of the third cycle, students' average scores in these areas had increased to 80% from their initial 55%. These enhancements show how PBL's authentic and collaborative nature created chances for meaningful language use, which improved language skills all around.

Qualitative information gathered from field notes, teacher reflections, and interviews sheds more light on how PBL affects student learning. Group dynamics issues were noted in the first cycle, with students finding it difficult to schedule their time and work together well. By the third cycle, though, there had been a noticeable improvement in group cohesion, with more balanced involvement and explicit work delegation. Peer input and regular reflection periods helped students develop their communication and teamwork abilities.

Interviews showed that students' perspectives about studying English had changed. Students said PBL activities increased the relevance and enjoyment of learning. For instance, one student said:

"We get to work on interesting projects instead of just memorizing words,"

while another said,

"The projects made me feel like I'm using English for something real, not just for tests."

These comments illustrate how much students love learning English. These answers demonstrate how PBL improved learning by making it more exciting and relevant to the learners' contexts.

The cooperating teacher also noted notable shifts in student conduct and classroom dynamics. Many students were reluctant to speak in front of their peers in English at first, but by the third cycle, their willingness to share their ideas and participate in conversations had visibly increased. Additionally, the PBL method encouraged critical thinking and creativity, which were less prevalent in more conventional classroom settings. The instructor said:

"At the start, many students were shy and hesitant to speak English, but by the last cycle, they were eager to present their ideas."

Even though the study was primarily successful, there were specific difficulties, especially in the beginning. In the first cycle, resistance to group work and unequal workload distribution were prevalent because some students found it challenging to work well with others. To address this, the researcher and teacher established more defined roles and duties inside the groups, enhancing group dynamics in the following cycles. Furthermore, students with weaker proficiency first found it difficult to handle the intricacy of the project tasks. Scaffolding approaches addressed this by giving language support worksheets and extra teacher guidance. It helped the students ¹³ feel more confident and encouraged them to participate more actively in subsequent cycles.

The findings show that PBL improved language learning outcomes and student engagement. The integration of real-world problems, encouragement of teamwork, and provision for ongoing reflection enabled students to apply their English language proficiency in significant ways. The more engaging and positive classroom environment that resulted from the combination of student-centered learning and active involvement facilitated students' academic and personal progress.

4. DISCUSSION

The study's findings prove the ¹⁸ benefits of project-based learning (PBL) for improving EFL students' motivation, engagement, and language ability. The results are consistent with earlier studies highlighting how PBL helps create a learner-centered environment that encourages engagement and actual language use (Beckett & Slater, 2020). The gradual rise in student participation during the three cycles highlights PBL's ability to change passive learning into dynamic interaction where students take charge of their education. It is possible to inspire even the most resistant learners through constant participation in real-world tasks, as evidenced by the 85% of students who showed consistent engagement by the end of the cycle, a notable improvement from the initial 50% (Kokotsaki, Menzies, & Wiggins, 2016).

90% of students reported feeling more interested in learning English due to participating in PBL activities, indicating a significant increase in student motivation. This result supports the claim that PBL ¹⁵ increases motivation by giving students meaningful and applicable assignments that relate what they learn in the classroom to real-world situations (Thomas, 2000). PBL's collaborative approach, in particular, made it possible for students to participate in social learning, where they gained from peer support and criticism and improved motivation and confidence (Vygotsky, 1978; Maulina, 2015). The disengagement problem frequently observed in EFL classes dominated by rote learning is addressed by the move from traditional, teacher-centered instruction to student-driven projects (Johnson, 2017).

Assessment scores increased, indicating significant progress in language proficiency, especially in writing and speaking. The average writing score of the students increased from 60% in the first cycle to 85% in the third, showing significant improvements in vocabulary use, coherence, and sentence construction. Comparably, speaking scores rose from 55% to 80%, indicating improved confidence and fluency. These improvements demonstrate ³ how PBL's emphasis on real-world communication activities motivates students to use the target language in context-relevant ways, essential for successful language learning (Stoller, 2006; Alavija & Mahfoodh, 2023). Students could use English not only for academic purposes but also as a tool for real-world problem-solving, which is vital in establishing communicative competence (Richards, 2015). It was made possible by the incorporation of language skills into the project.

However, the study also identified several difficulties in applying PBL in EFL settings. During the first cycle, there were issues with task management and group

dynamics, especially with students who needed to be used to working in groups. This task is consistent with Bell's (2010) findings, which showed that students new to PBL frequently struggle with self-management and equitable participation. Addressing these problems with more defined group responsibilities, frequent feedback meetings, and focused scaffolding improved group cohesiveness and guaranteed equitable contributions. Additionally, as is frequently the case in mixed-ability classrooms, lower-proficiency students first needed help keeping up with the demands of the projects (Ellis, 2009). However, these students could actively participate and steadily develop their language skills because scaffolding tactics like guided practice and additional language help were introduced.

According to the study's findings, PBL works incredibly effectively in EFL classes where students can use the language in meaningful and communicative circumstances. PBL encourages cognitive and emotive involvement in learners by giving them projects similar to real-world problems. This improves learning results. However, the study also emphasizes the necessity of cautious preparation and assistance, mainly when working with various students. To optimize PBL's advantages, it is imperative to guarantee that every student has the resources and direction they need to thrive in a PBL setting (Hutchinson, 2021). Furthermore, even though PBL had a generally favorable effect, the study indicates that the methodology may need to be modified to fit different cultural and educational contexts, especially when children have little exposure to English outside the classroom.

This study adds to the expanding body of research on PBL by illustrating how it might improve language competency and learner engagement in an EFL context. This study fills a knowledge vacuum by examining how PBL can be adapted for EFL situations. As a result, it provides educators with useful information for implementing PBL tactics that are sensitive to their students' requirements and learning environments. Future studies could look into the long-term effects of PBL on language development and how it can be used in various educational contexts and skill levels.

5. CONCLUSION

This study shows how Project-Based Learning (PBL) can improve student motivation, engagement, and language proficiency in an EFL setting. Three cycles of the iterative classroom action research design demonstrated steady gains in student confidence, engagement, and general learning outcomes. Students were given meaningful and contextually relevant opportunities to utilize English by transitioning from traditional, teacher-centered techniques to student-driven projects, resulting in higher motivation and engagement. The

results validate the claim that PBL, by encouraging self-governance, teamwork, and creativity, can alleviate the disengagement frequently linked with memorization.

The study also emphasizes how crucial it is to scaffold and modify PBL techniques to accommodate students' varied needs, especially those less proficient in language. Early issues with group dynamics and task complexity have to be resolved to get the most out of PBL. The findings imply that PBL can establish a more inclusive and dynamic learning environment where students of different skill levels can succeed with the right assistance and thoughtful planning.

The study adds to the expanding corpus of research on PBL in EFL teaching by providing helpful information about how to apply it and how well it enhances language learning results. Although PBL's educational advantages are well known, this study focuses on how it can be explicitly implemented in EFL settings, where active language use and engagement are crucial. Future studies should look at the long-term effects of PBL on language acquisition and its suitability in various cultural and educational contexts to further improve the best practices for teaching English as a foreign language.

REFERENCES

- Alan, B., & Stoller, F. (2005). Maximizing the benefits of project work in foreign language classrooms. *English Teaching Forum*, 43(4), 10-21.
- Alavija, R. S., & Mahfoodh, O. H. A. (2023). The impact of Project-Based Learning on EFL learners' engagement and language proficiency: A systematic review. *Journal of Language and Education*, 9(1), 45-58. <https://doi.org/10.17323/jle.2023.1250>
- Alrabai, F. (2014). The influence of teachers' anxiety-reducing strategies on learners' foreign language anxiety. *Innovation in Language Learning and Teaching*, 8(3), 183-202.
- Beckett, G. H., & Slater, T. (2005). The Project Framework: A tool for language, content, and skills integration. *ELT Journal*, 59(2), 108-116.
- Beckett, G. H., & Slater, T. (2020). *Project-Based Learning and English Language Learners: A Practical Guide for Teachers*. TESOL Press.
- Bell, S. (2010). Project-based learning for the 21st century: Skills for the future. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 83(2), 39-43. <https://doi.org/10.1080/00098650903505415>
- Dörnyei, Z. (2001). *Motivational strategies in the language classroom*. Cambridge University Press.
- Ellis, R. (2009). *Task-Based Language Teaching and Learning*. Oxford University Press.

- Febiola, F., Maulina, M., & Nasrullah, R. (2024). Unveiling the communication skills dynamics of Indonesian students in international credit transfer program: a phenomenological inquiry into academic lived experiences in the Philippines. *Klasikal : Journal of Education, Language Teaching and Science*, 6(1), 52–68. <https://doi.org/10.52208/klasikal.v6i1.1115>
- Fragoulis, I. (2009). Project-Based Learning in the teaching of English as a foreign language in Greek primary schools: From theory to practice. *English Language Teaching*, 2(3), 113-119.
- Guo, Y. (2020). Project-based learning and its implementation in the EFL classroom: A critical review. *Journal of Language Teaching and Research*, 11(1), 64-72.
- Hutchinson, T. (2021). *The Essentials of Project-Based Learning in Language Education*. Routledge.
- Johnson, L. (2017). Rethinking traditional education: The case for student-centered approaches. *Journal of Educational Research and Practice*, 11(3), 115-127.
- Kokotsaki, D., Menzies, V., & Wiggins, A. (2016). Project-based learning: A review of the literature. *Improving Schools*, 19(3), 267-277. <https://doi.org/10.1177/1365480216659733>
- Larmer, J., & Mergendoller, J. R. (2015). *Gold standard PBL: Essential project design elements*. Buck Institute for Education.
- Levy, M. (2016). PBL and learner engagement: Lessons from language learning projects. *Language Teaching Research*, 20(3), 291-309.
- Maulina, M. (2015). The Correlation Among Gender, Language Learning Strategies, and English Achievement of English Department Students of Tarbiyah Faculty. *Ethical Lingua: Journal of Language Teaching and Literature*, 2(1).
- Maulina, M. (2019). Gender differences in language development, acquisition, comprehension, and production. In *Proceedings of the 65th TEFLIN International Conference* (Vol. 65, No. 01).
- Maulina, M., Nasrullah, R., & Wanci, R. (2022). Social Media Utilization for Self-Regulated English Learning during COVID-19 Outbreaks. *Tell : Teaching of English Language and Literature Journal*, 10(1), 75–83. <https://doi.org/10.30651/tell.v10i1.12599>
- Nguyen, N. (2019). The limitations of traditional teaching methods in EFL contexts: A Vietnamese case study. *Asian EFL Journal*, 21(2), 45-62.
- Nurhayani, N., Maulina, M., & Nasrullah, R. (2024). Students' Responses on Material, Comprehension, and Interaction during the English Learning Process: A Case Study at Junior High School. *Mataoleo: Journal of English Education and Linguistics*, 1(1), 44–55. Retrieved from <https://journal.umkendari.ac.id/index.php/mataoleo/article/view/47>
- Nurhayati, N., Maulina, M., & Faridawati, F. (2024). Students' lived experience of social adjustment in international credit transfer program: A phenomenological study. *Klasikal : Journal of Education, Language Teaching and Science*, 6(1), 88–102. <https://doi.org/10.52208/klasikal.v6i1.1116>

- Richards, J. C. (2015). *Key issues in language teaching*. Cambridge University Press.
- Stoller, F. (2006). Establishing a theoretical foundation for project-based learning in second and foreign language contexts. In G. H. Beckett & P. C. Miller (Eds.), *Project-Based Second and Foreign Language Education* (pp. 19-40). Information Age Publishing.
- Thomas, J. W. (2000). *A review of research on project-based learning*. Autodesk Foundation.
- Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Harvard University Press.
- Wahyudi, R., Maulina, M., & Muflihun, M. (2024). Live experience of academic culture adjustment in international credit transfer program: A phenomenological study. *Klasikal : Journal of Education, Language Teaching and Science*, 6(1), 37–51. <https://doi.org/10.52208/klasikal.v6i1.1103>

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