

EXPLORING PROJECT-BASED LEARNING FOR ENHANCING CRITICAL THINKING SKILLS IN EFL CLASSROOMS

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Abstrak - Penelitian ini mengeksplorasi penerapan Project-Based Learning (PBL) sebagai strategi untuk meningkatkan keterampilan berpikir kritis dalam pembelajaran Bahasa Inggris sebagai Bahasa Asing (EFL). Penelitian ini menggunakan desain deskriptif kualitatif dengan pengumpulan data melalui observasi kelas, proyek siswa, kuesioner, dan wawancara terhadap 30 siswa sekolah menengah atas di Tangerang Selatan, Indonesia. Temuan penelitian menunjukkan bahwa PBL mampu mendorong keterampilan berpikir kritis melalui kegiatan identifikasi masalah, evaluasi alternatif solusi, pengambilan keputusan, dan refleksi, sekaligus meningkatkan kemampuan berbahasa Inggris siswa. Selain itu, siswa melaporkan adanya peningkatan motivasi dan keterlibatan, serta menilai positif kesempatan menggunakan bahasa Inggris dalam konteks nyata, meskipun beberapa tantangan muncul seperti manajemen waktu dan ketidakmerataan partisipasi kelompok. Secara keseluruhan, penelitian ini menegaskan bahwa PBL merupakan pendekatan pembelajaran yang efektif untuk mengintegrasikan pembelajaran bahasa dengan pengembangan keterampilan berpikir tingkat tinggi, serta memiliki potensi untuk diterapkan lebih luas dalam pendidikan EFL.

Kata kunci: Project-Based Learning, Berpikir Kritis, EFL.

Abstract - This study explores the implementation of Project-Based Learning (PjBL) as a means to enhance critical thinking skills in English as a Foreign Language (EFL) classrooms. Using a qualitative descriptive design, data were collected through classroom observations, student projects, questionnaires, and interviews involving 30 senior high school students in South Tangerang, Indonesia. The findings reveal that PjBL fosters critical thinking by engaging students in problem identification, evaluation of alternative solutions, decision-making, and reflective judgment, while simultaneously improving their language proficiency. Students reported higher motivation and engagement, appreciating opportunities to use English in authentic contexts, although challenges such as time management and unequal participation emerged. Overall, the study highlights PBL as an effective instructional approach that integrates language learning with higher-order thinking, suggesting its potential for broader application in EFL education.

Keywords: Project-Based Learning, Critical Thinking, EFL.

1. INTRODUCTION

In the 21st century, education has shifted its focus toward preparing students with the competencies necessary to thrive in a rapidly changing world. Learners are required not only to master linguistic competence but also to develop higher-order thinking skills such as critical thinking, creativity, and problem-solving (Adeoye & Jimoh, 2023; D'Souza et al., 2019; Vargas et al., 2020). Critical thinking, in particular, is considered an essential skill because it enables learners to analyze information, evaluate different perspectives, and make informed decisions (Sari & Wardhani, 2020; Ratih & Arsih, 2024; Hikmawati & Ningsih, 2020). In the context of English as a Foreign Language (EFL), this need becomes more crucial since students are expected to use English not only for communication but also as a

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medium for academic inquiry and global participation (Alberth, 2023; Montafej et al., 2021; Tuzer & Kilimci, 2024). Unfortunately, many classroom practices still prioritize rote learning, grammar drills, and vocabulary memorization, which do not sufficiently stimulate students' critical engagement with language and content.

Traditional teacher-centered methods remain dominant in many EFL classrooms, where the teacher serves as the sole authority and students act as passive recipients of information. While such methods can support short-term goals such as preparing for tests, they often fail to cultivate essential skills like collaboration, creativity, and critical analysis (Richards & Rodgers, 2014; Azmi et al., 2024; Thornhill-Miller et al., 2023). Learners taught under these approaches may be able to recall linguistic knowledge but struggle to apply it in real-life problem-solving contexts. Moreover, research has shown that teacher-centered instruction limits opportunities for meaningful communication, thereby restricting students' development of both language proficiency and higher-order thinking skills (Brown, 2015). This mismatch between instructional practices and the demands of 21st-century education emphasizes the urgency of adopting more innovative, student-centered learning strategies.

Project-Based Learning (PjBL) has emerged as a promising alternative to traditional teaching methods in EFL contexts. According to Thomas (2019), PjBL is an instructional model that organizes learning around projects, requiring learners to engage in inquiry, problem-solving, and knowledge construction. PjBL is grounded in constructivist theory, which emphasizes that learners actively build knowledge through experience and collaboration (John-Steiner & Mahn, 2020). By working on meaningful projects, students are encouraged to use English authentically, negotiate meaning with peers, and develop practical solutions to real-world problems (Becket & Lida, 2016; Arochman et al., 2024). These characteristics make PjBL particularly suitable for enhancing critical thinking, as students are challenged to question assumptions, evaluate evidence, and justify their decisions in both written and spoken English.

Empirical studies have highlighted the benefits of PjBL in promoting higher-order thinking and language development. Bell (2019) found that PjBL engages students in deep learning by requiring them to analyze, evaluate, and create solutions, all of which are integral components of critical thinking. Similarly, Hamidah et al. (2020) reported that PjBL enhances motivation and critical thinking among EFL learners by connecting classroom tasks to real-life contexts. Mutanga (2024) also discovered that PjBL improves problem-solving skills, collaboration, and students' ability to use English in authentic situations. These findings suggest that PjBL not only strengthens linguistic competence but also cultivates learners' cognitive and affective skills, making it a comprehensive approach to language teaching in the 21st century.

Considering the importance of equipping students with both language proficiency and critical thinking, it is essential for EFL teachers to implement innovative instructional strategies that respond to the challenges of modern education. Project-Based Learning provides an avenue to achieve this dual objective, as it integrates meaningful communication with inquiry-based learning and reflection. By engaging in projects, students are given opportunities to demonstrate autonomy, creativity, and responsibility for their own learning (Alan & Stoller, 2015). Furthermore, PjBL promotes collaborative learning, which encourages students to negotiate meaning, resolve conflicts, and evaluate different viewpoints, all of which are fundamental aspects of critical thinking (Bertacchini et al., 2022; Pan et al., 2022; Ratih &

Arsih, 2024). Therefore, this study seeks to explore the implementation of PjBL in EFL classrooms and examine its potential to enhance students' critical thinking skills, providing valuable insights for teachers, curriculum designers, and policymakers.

Research Question

- 1) How can project-based learning be implemented in EFL classrooms?
- 2) To what extent does project-based learning enhance students' critical thinking skills?
- 3) What are students' perceptions of PjBL in improving their critical thinking?

2. METHOD

2.1 Research Design

This study adopts a qualitative descriptive design because it seeks to provide a detailed account of how Project-Based Learning (PjBL) is implemented in EFL classrooms and how it influences students' critical thinking skills. A qualitative approach is appropriate since the study aims to explore phenomena in their natural context rather than testing hypotheses with statistical analysis (Creswell & Creswell, 2017). Through qualitative descriptive methods, the researcher can capture classroom dynamics, students' experiences, and teachers' instructional practices in depth. This design also allows the use of multiple sources of evidence such as observation notes, project outcomes, and interview responses to gain a holistic understanding of the phenomenon. By applying this approach, the study attempts to describe patterns, processes, and insights that emerge from the teaching and learning activities.

2.2 Participants

The research was conducted at a private senior high school in South Tangerang, Indonesia, where English is taught as a compulsory subject. The site was chosen because the school has implemented communicative approaches in English teaching but has limited experience with Project-Based Learning. The participants consisted of 30 EFL students aged between 15 and 17 years old from one class that was purposively selected. Purposive sampling was used because the selected group was considered relevant for exploring the research objectives, as the students had intermediate proficiency in English and were familiar with collaborative learning. The participants were also chosen based on their availability and willingness to engage in project-based tasks. The selection ensured that the data obtained would reflect students' authentic experiences with PjBL and their critical thinking development.

2.3 Instruments of Data Collection

To collect the data, three main instruments were employed. First, classroom observation was conducted to examine how the teacher implemented PjBL activities, how students participated, and what strategies promoted critical thinking. Observation notes provided a direct record of the teaching-learning process. Second, student projects such as posters, reports, and video presentations were analyzed to identify evidence of critical thinking, including problem identification, solution generation, and justification of ideas. These artifacts served as tangible outcomes of the learning process. Third, questionnaires and semi-structured interviews were administered to capture students' perceptions of PjBL, including its challenges and benefits. The triangulation of these instruments strengthened the validity of the data by allowing the researcher to cross-check findings from multiple sources (Denzin & Lincoln, 2011; Neuman, 2019; Patton, 2020).

2.4 Data Analysis Procedure

The collected data were analyzed using thematic analysis as outlined by Braun and Clarke (2019). The process began with familiarization with the data, where the researcher repeatedly read observation notes, project documents, and interview transcripts to gain a general sense of the content. The second step involved coding and categorizing, in which meaningful segments of the data were labeled with codes that represented emerging ideas or patterns. These codes were then grouped into categories that reflected broader aspects of PjBL and critical thinking. In the third step, themes were identified, linking categories into overarching concepts such as collaboration, problem-solving, or reflective thinking. Finally, the themes were interpreted and synthesized to draw conclusions about how PjBL was implemented and how it influenced students' critical thinking skills. The systematic analysis ensured that the findings were grounded in the data while allowing for rich interpretation.

3. RESULT AND DISCUSSION

3.1 Result

3.1.1 Implementation of PjBL in EFL Classrooms

The implementation of Project-Based Learning (PjBL) in the EFL classroom began with a planning stage, where the teacher introduced the overall theme of the project and explained the objectives of the activity. At this stage, students were encouraged to identify real-life problems or issues that were both relevant to their lives and meaningful in the context of English learning. The teacher acted as a facilitator, guiding students to formulate research questions and brainstorming possible project ideas. This step was crucial as it ensured that students had a clear understanding of the project goals and the skills that would be developed. By engaging students in planning, the activity promoted autonomy, critical inquiry, and active participation, which are fundamental elements of learner-centered pedagogy (Alan & Stoller, 2015).

After planning, students moved into the design and development stages, where they collaborated in small groups to organize their project structures and assign specific roles. Each group was responsible for conducting research, collecting data, and integrating their findings into concrete outputs such as English video documentaries, creative posters, and written reports. These stages allowed students to apply English authentically, not merely for classroom exercises but as a tool to gather information, present arguments, and communicate ideas. Working collaboratively, students practiced negotiation, problem-solving, and decision-making, which required them to think critically about the accuracy and relevance of information they collected. The development process also encouraged creativity, as students were given the freedom to determine the format and content of their projects while still adhering to the objectives set during the planning stage.

The presentation and reflection stages marked the culmination of the project-based activities. In the presentation stage, students shared their projects with their peers, demonstrating their ability to communicate in English while explaining their findings and solutions. This stage not only gave students authentic opportunities to practice public speaking but also created a platform for peer evaluation, where classmates could ask questions, provide constructive feedback, and challenge the ideas presented. The reflection stage, conducted at the end of the project, allowed both students and the teacher to evaluate the entire learning process, including the challenges faced, the strategies that worked, and the skills that were developed. Reflection also encouraged students to think about how their critical thinking skills improved through problem-solving, analyzing information, and defending their viewpoints. Overall, the

cyclical nature of PJBL—from planning to reflection—ensured that language learning was deeply connected with critical thinking development, making the classroom experience more engaging, authentic, and intellectually stimulating.

3.1.2 Enhancement of Critical Thinking Skills

The analysis of student projects and classroom activities revealed that learners demonstrated significant progress in identifying and analyzing problems. During the project planning and design stages, students were encouraged to explore issues relevant to their lives, such as environmental concerns, social media usage, or school-related challenges. They were able to frame these topics into guiding questions that required further investigation. This process demanded that students differentiate between surface-level observations and deeper, more complex issues. For instance, when working on a video documentary about waste management, students not only described the problem of littering in their school environment but also analyzed its causes and potential long-term consequences. Such activities reflect what Cortázar et al. (2021) describes as the initial step of critical thinking—recognizing problems clearly and systematically analyzing them.

Beyond problem identification, students engaged in evaluating alternative solutions throughout the project development stage. As they collected information from various sources, students compared different perspectives and weighed the feasibility of possible actions. For example, one group debated whether the best approach to reducing waste was implementing stricter school regulations or raising awareness through campaigns. This evaluation process required them to consider evidence, assess strengths and weaknesses of each option, and predict potential outcomes. According to Arif (2024), such evaluative tasks are key indicators of critical thinking because they move students beyond rote responses toward reasoned judgment. The collaborative nature of the projects also pushed learners to articulate their opinions, listen to contrasting viewpoints, and refine their arguments collectively, further strengthening their analytical capacity.

Another dimension of critical thinking observed in the projects was decision-making and argument justification. After evaluating alternatives, students were required to select the most appropriate solution and provide reasons to support their choices. In their presentations, many groups explicitly justified why they chose one approach over another, often citing evidence from their research or experiences. For example, when presenting their problem-solving posters, students not only described their solutions but also defended them against peer questions, which required them to think spontaneously and logically. This practice resonates with Ennis (2020) view that critical thinkers must not only make decisions but also defend them with sound reasoning and evidence. Finally, during the reflection stage, students engaged in metacognitive processes by assessing their own group performance, identifying strengths and weaknesses in their collaboration, and suggesting improvements for future projects. This reflective practice aligns with Dewey (2018) perspective that true critical thinking involves ongoing self-evaluation and awareness of one's thought processes. Collectively, these findings indicate that PJBL provided a conducive environment for fostering multiple aspects of critical thinking in EFL learners.

3.1.3 Students' Perceptions of PjBL

The findings of this study revealed that students generally reported increased motivation and engagement when participating in Project-Based Learning (PjBL). Compared to traditional teacher-centered instruction, they felt more enthusiastic about learning because the activities were interactive and closely connected to their own interests. The opportunity to work

collaboratively and create tangible products, such as videos and posters, encouraged them to take ownership of their learning. Several students mentioned that they felt more responsible for contributing ideas and completing tasks since the project outcomes depended on collective effort. This sense of accountability contributed to higher levels of commitment, as students were eager to see their projects succeed. These perceptions are consistent with Bell (2019), who argues that PjBL fosters intrinsic motivation by giving students meaningful tasks that make learning purposeful and enjoyable.

Another important perception expressed by students was their appreciation for the chance to use English in real-life contexts. Unlike traditional grammar or vocabulary drills, PjBL required them to apply English in authentic communication, such as interviewing peers, presenting findings, or narrating video documentaries. Many students stated that this helped them feel more confident in speaking English and improved their ability to express ideas fluently. They also valued the process of negotiating meaning within their groups, which pushed them to use English more spontaneously and creatively. According to Shi et al. (2024), one of the strengths of PjBL is its integration of language use with authentic content, which not only enhances linguistic competence but also provides a meaningful context for language practice. In this sense, PjBL was perceived not only as a method for language learning but also as a bridge connecting classroom activities to real-world communication.

Despite these positive responses, students also identified several challenges in implementing PBL, particularly related to time management and group participation. Some students reported difficulty balancing project tasks with other academic responsibilities, which sometimes resulted in rushed work or incomplete preparation before presentations. Additionally, unequal participation among group members was a recurring issue, as certain students contributed more actively while others were less engaged. This imbalance occasionally caused frustration and required teacher intervention to ensure fair collaboration. However, many students acknowledged that these challenges also taught them valuable lessons about teamwork, negotiation, and responsibility. Such challenges are not uncommon in collaborative learning contexts, as noted by Puspitasari (2020), who emphasizes that successful PjBL requires careful scaffolding and teacher guidance to support effective group dynamics. Overall, students' perceptions indicated that while PjBL presented difficulties, its benefits in terms of motivation, authentic language use, and critical thinking development outweighed the challenges.

3.2 Discussion

The findings of this study confirm that Project-Based Learning (PjBL) plays a significant role in fostering critical thinking skills among EFL learners. The collaborative and inquiry-based nature of PjBL provided opportunities for students to engage in questioning, analyzing, and evaluating information, which are central components of higher-order thinking. Students were not only able to identify problems but also to propose and justify solutions, demonstrating the cognitive processes emphasized in Montafej et al. (2021) model of critical thinking. This aligns with Bell (2019), who noted that PjBL enhances student learning by encouraging analysis, synthesis, and evaluation rather than rote memorization. In addition, the reflective stage of PjBL further strengthened metacognitive awareness, as students assessed their own thought processes and group dynamics. Thus, the study reinforces the argument that PjBL creates a classroom environment that naturally integrates language learning with the cultivation of critical and reflective thinking.

The positive perceptions reported by students indicate that PjBL is not only effective for developing linguistic competence but also for cultivating critical thinking dispositions such as curiosity, open-mindedness, and reflective judgment. Students expressed appreciation for the opportunity to use English in real-life contexts, which made the learning experience more authentic and meaningful. This is in line with Becket and Lida (2016), who argue that PjBL connects language learning with meaningful tasks, thereby enhancing both motivation and cognitive development. Kani and Yılmaztürk (2021) also highlights that embedding critical thinking into EFL instruction requires instructional approaches that promote active inquiry and real-world problem-solving—characteristics strongly reflected in PjBL. Moreover, the sense of ownership and autonomy in project tasks encouraged students to view themselves as active participants in their learning process, an outcome that is essential in fostering lifelong learning skills.

Despite these benefits, the study also highlighted several challenges that need to be addressed to optimize the implementation of PjBL in EFL classrooms. Issues such as unequal participation among group members, difficulties in time management, and the need for stronger classroom management were commonly reported by students. These challenges mirror Poonpon (2019) observation that successful PjBL requires careful planning, scaffolding, and teacher support to ensure that learning objectives are met. Similarly, Ratih and Arsih (2024) noted that without adequate teacher guidance, group projects may suffer from imbalanced contributions and reduced effectiveness. Therefore, while PjBL holds great potential for enhancing both language learning and critical thinking, its success depends on the teacher's ability to design structured activities, monitor group dynamics, and provide timely feedback. Addressing these challenges will ensure that PjBL not only engages learners but also maximizes their development of critical thinking skills in EFL contexts.

4. CONCLUSION

This study concludes that the implementation of Project-Based Learning (PjBL) in EFL classrooms significantly enhances students' critical thinking skills. The findings demonstrate that through the structured stages of project planning, design, development, presentation, and reflection, students actively engaged in identifying problems, evaluating alternative solutions, making decisions, and justifying arguments in English. The results further indicate that PjBL not only improves language proficiency but also cultivates dispositions of critical thinking such as curiosity, reflective judgment, and open-mindedness. Moreover, students reported increased motivation and engagement, highlighting that authentic, real-life learning tasks create a more meaningful and enjoyable classroom experience. These findings confirm the relevance of PjBL as a powerful pedagogical approach for fostering both linguistic competence and higher-order thinking skills in EFL contexts.

The implications of this research are twofold. From a pedagogical perspective, PjBL provides a student-centered approach that integrates language learning with the development of 21st-century skills, particularly critical thinking. Teachers can use PBL as a framework to design lessons that promote deeper engagement, collaboration, and inquiry rather than traditional rote learning. For institutions, adopting PjBL implies a shift toward curriculum models that emphasize creativity, problem-solving, and real-world application of language, preparing learners for global communication and lifelong learning. Theoretically, this study strengthens the body of literature that supports the integration of innovative teaching methods in language education, particularly in contexts where traditional methods still dominate. Therefore, the

research suggests that effective language learning is inseparable from the cultivation of cognitive and critical skills.

Nevertheless, several challenges remain that require attention. Issues such as unequal group participation, time management difficulties, and the need for stronger scaffolding highlight the importance of careful planning and teacher facilitation in PjBL. To address these challenges, future research should explore strategies for improving group dynamics, developing assessment models that fairly capture individual contributions, and integrating technology to support project management and collaboration. Longitudinal studies would also be valuable to examine the long-term impact of PjBL on students' critical thinking development and language proficiency. In addition, comparative studies between PBL and other innovative approaches, such as Task-Based Language Teaching (TBLT) or Problem-Based Learning, could provide further insights into the most effective methods for fostering critical thinking in EFL contexts.

In conclusion, this study provides evidence that PjBL is a highly effective instructional approach for enhancing critical thinking and language learning in EFL classrooms. Its implementation not only motivates learners but also equips them with essential cognitive and communicative skills needed in the 21st century. Teachers, curriculum designers, and policymakers are encouraged to adopt and adapt PjBL within their contexts, while researchers should continue to investigate its potential and refine its application to maximize impact on both teaching and learning outcomes.

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