

THE USE OF PROJECT-BASED LEARNING TO PROMOTE HIGHER-ORDER THINKING SKILLS IN ENGLISH LANGUAGE TEACHING: TEACHERS' PERCEPTIONS

Suciyati Ummu Habibah, Enni Erawati Saragih, Maulidia Rachmawati

English Education Program
Faculty of Teacher Training and Education
Universitas Ibn Khaldun, Bogor
Suciy2211@gmail.com

ABSTRACT

Penelitian ini bertujuan untuk mengeksplorasi persepsi guru mengenai penerapan model pembelajaran berbasis proyek (*Project-Based Learning*) dalam pengajaran bahasa Inggris guna mendorong keterampilan berpikir tingkat tinggi (*Higher-Order Thinking Skills*) siswa. Penelitian ini menggunakan pendekatan kualitatif dengan desain studi kasus yang melibatkan tiga guru bahasa Inggris dari tiga sekolah swasta di Kabupaten Bogor, Jawa Barat. Data dikumpulkan melalui angket tertutup dan wawancara semi-terstruktur, kemudian dianalisis dengan model interaktif dari Miles, Huberman, Saldana (2019), yaitu reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa para guru memahami konsep secara komprehensif mengenai project-based learning dan meyakini efektivitasnya dalam meningkatkan higher-order thinking skills siswa. Project-based learning dinilai mampu meningkatkan partisipasi aktif, kreativitas, kolaborasi, serta penerapan bahasa Inggris dalam konteks nyata. Namun, penerapannya juga menghadapi tantangan seperti keterbatasan waktu, kesiapan siswa, serta kebutuhan akan panduan yang memadai. Oleh karena itu, penting bagi pendidik untuk merancang strategi *project-based learning* secara terstruktur agar pembelajaran menjadi bermakna dan berdampak terhadap pengembangan kemampuan berpikir kritis siswa. Implikasi dari hasil ini menunjukkan pentingnya pelatihan guru dan dukungan kurikulum yang berkesinambungan.

Kata kunci : *Project-Based Learning, Higher-Order Thinking Skills, Bahasa Inggris, Persepsi Guru, Kurikulum Merdeka.*

ABSTRACT

This study aims to explore teachers' perceptions regarding the use of Project-Based Learning in English language teaching to promote students' Higher-Order Thinking Skills. A qualitative approach with a case study design was employed, involving three English teachers from private schools in Bogor Regency, West Java. Data were collected through close-ended questionnaires and semi-structured interviews and analyzed using the interactive model by Miles, Huberman, Saldana (2019), which includes data reduction, data display, and conclusion drawing. The findings reveal that teachers possess a solid understanding of project-based learning and believe in its effectiveness for enhancing students' critical, creative, and analytical thinking. Project-based learning engages students in active, meaningful learning through real-world projects and collaboration. However, challenges such as limited time, student readiness, and the need for clear scaffolding were also identified. Therefore, effective implementation requires structured planning and adequate support to ensure the meaningful development of students' cognitive skills through English instruction. The implication of these findings highlights the importance of continuous teacher training and consistent curriculum support.

Keyword: *Project-based learning, Higher-order thinking skills, English, Teacher's perceptions, Merdeka curriculum.*

INTRODUCTION

The development of English language education has increasingly emphasized the cultivation of both linguistic competence and cognitive abilities, particularly students' critical and creative thinking skills. In response to the demands of 21st-century learning, innovative instructional approaches such as Project-Based Learning have gained attention for their capacity to engage learners in meaningful, real-world tasks that extend beyond traditional classroom methods (Luchang and Mohamad Nasri 2023). Unlike conventional strategies that often focus on memorization and rote practice, project-based learning promotes student-centered learning by integrating collaboration, inquiry, and problem-solving into the process of language acquisition (Almulla 2020; Thomas, Condliffe, and Quint 2000).

Higher-order thinking skills, as outlined in Bloom's Revised Taxonomy, encompass the cognitive abilities to analyze, evaluate, and create—skills that are essential for learners to function effectively in increasingly complex academic and social contexts (Setiawan et al. 2021). These skills go beyond surface-level understanding and require learners to engage deeply with content, reflect critically, and apply knowledge in novel situations. The Merdeka Curriculum in Indonesia reflects this paradigm shift, urging educators to implement strategies that nurture students' reasoning, innovation, and independent learning abilities (Silvia Husni and Aisah Ginting 2023). As such, the integration of project-based learning in English instruction is viewed as a powerful mechanism for aligning language learning objectives with broader educational goals.

Previous studies have confirmed the positive impact of project-based learning on language development and cognitive growth. For example, research has shown that students involved in project-based tasks demonstrate improved analytical thinking, communication, and collaborative skills (Halim et al. 2023; Isnani 2023). Nevertheless, much of the existing literature tends to focus on students' learning outcomes, with limited exploration of teachers' perspectives as the facilitators of project-based learning in real classroom environments. Since teachers play a crucial role in designing, guiding, and assessing project-based tasks, understanding their perceptions is vital for successful

implementation, especially within the structure of the Merdeka Curriculum.

To address this gap, the present study investigates teachers' perceptions of using Project-Based Learning in English classes to promote students' higher-order thinking skills. Specifically, it explores how teachers understand, apply, and evaluate project-based learning in the context of language teaching, as well as the challenges and supports they encounter during implementation. By analyzing both conceptual and practical insights from educators, this study contributes to a richer understanding of how project-based learning can be effectively integrated into EFL instruction to foster critical and creative thinking among students.

METHOD

This study employed a qualitative approach with a descriptive case study design to gain an in-depth understanding of English teachers' perceptions of using Project-Based learning to promote students' Higher-Order Thinking Skills. The case study design was selected as it allows the researcher to explore contemporary educational practices within their real-life contexts, aligning with the study's goal to capture authentic insights from active practitioners. The participants of this study consisted of three male English teachers from private elementary and junior high schools in Bogor Regency, West Java. These participants were purposefully selected due to their active use of project-based learning strategies in their English language teaching, making them suitable to provide relevant and insightful data for the research objectives.

Data collection was conducted using two primary instruments: close-ended questionnaires and semi-structured interviews. The questionnaire was designed using a four-point Likert scale with response options ranging from "strongly disagree" to "strongly agree." It comprised ten statements categorized into four areas: teachers' understanding of project-based learning (items 1–2), the implementation of project-based learning in English classrooms (items 3–4), its effectiveness in promoting higher-order thinking skills (items 5–6), and the challenges and supporting factors in applying project-based learning (items 7–10). The semi-structured interviews were conducted to further explore teachers' personal experiences, teaching

strategies, and perceptions regarding the use of project-based learning in fostering students' critical thinking, creativity, problem-solving, and analytical skills in English learning.

The data analysis technique adopted in this study followed the interactive model by Miles, Huberman, Saldana (2019), which involves three concurrent stages: data reduction, data display, and conclusion drawing/verification. In the data reduction stage, information obtained from the questionnaires and interview transcripts was condensed and categorized based on thematic components such as understanding, implementation, effectiveness, and challenges of project-based learning. In the data display stage, the categorized data were presented in descriptive narratives to enable interpretation and pattern recognition. The final stage involved drawing conclusions and verifying findings through data triangulation and rechecking, ensuring the accuracy, credibility, and trustworthiness of the results.

RESULT AND DISCUSSION

This study investigated English teachers' perceptions of the use of Project-Based Learning in teaching English to promote students' Higher-Order Thinking Skills and identified the challenges they encountered during its implementation. Data were obtained from close-ended questionnaires and semi-structured interviews involving three English teachers from private elementary and junior high schools in Bogor Regency, West Java. The findings indicated that Project-Based Learning was perceived as an effective approach to foster key components of higher-order thinking, including critical thinking, problem-solving, creativity, and evaluation. Teachers observed that project-based learning encouraged active student engagement, collaboration, and the application of English in real-life contexts. However, despite the positive outcomes, several challenges were reported, notably time constraints, complexities in assessing group work, and the need for extensive teacher guidance to ensure meaningful cognitive engagement.

Teachers' Understanding of Project-based Learning

The findings revealed that all participating teachers demonstrated a comprehensive

understanding of Project-Based Learning, where both items measuring teachers', indicating full agreement that they understood the fundamental concepts of project-based learning and believed in its effectiveness for enhancing students' higher-order thinking skills.

Teachers perceived project-based learning not only as an instructional method but as a pedagogical framework grounded in real-world learning, emphasizing student autonomy, inquiry, and active engagement. They understood that project-based learning involves authentic, student-centered tasks where learners are encouraged to explore problems, generate solutions, and create tangible products. This level of understanding aligns with the theoretical foundation of project-based learning as described by (Blumenfeld et al. 1991), who define it as a comprehensive approach in which students engage in complex tasks over extended periods to build deep content knowledge. Furthermore, teachers associated project-based learning with the development of 21st-century skills such as collaboration, communication, and creativity, which are vital components of the Merdeka Curriculum. The clarity of teachers' conceptual understanding suggests readiness for effective implementation in language classrooms and reflects a positive orientation toward pedagogical innovation.

Implementation of Project-Based Learning in English Classrooms

In addition to their theoretical comprehension, teachers also reported practical experiences in applying project-based learning in English teaching. The questionnaire results in the implementation section, indicating a high level of confidence and experience among teachers in executing project-based learning strategies. While there were variations in project scope and frequency due to contextual differences, all teachers had implemented project-based learning in their classrooms in meaningful ways.

Teachers integrated project work across different topics, including descriptive, procedural, and narrative texts. The projects ranged from video reviews and illustrated booklets to live demonstrations and class presentations. These activities reflect core project-based learning stages as described by (Patton 2012): starting with essential questions, designing a project plan, scheduling, monitoring progress, assessing

outcomes, and reflecting on the learning experience.

This structured process helped foster deeper student engagement and accountability. According to teachers, students responded positively to being active participants in the project cycle—from planning and researching to producing and exhibiting final products. These observations support findings by (Yogi Anggraena, Dion Ginanto, Nisa Felicia, Ardanti Andianti, Indriyati Herutami, Leli Alhapip 2022), who emphasized that project-based learning allows students to demonstrate learning through inquiry, exploration, and artifact creation. Importantly, the implementation of project-based learning also demonstrated flexibility and responsiveness to learners' needs and classroom realities. Teachers adjusted project scopes based on student levels, available time, and technological access. Despite these variations, the consistent element across all classrooms was the emphasis on learner involvement, creativity, and autonomy—hallmarks of successful project-based learning environments.

Effectiveness of Project-Based Learning in Promoting Higher-Order Thinking Skills

The study found strong evidence that project-based learning is an effective method for fostering students' higher-order thinking skills, particularly in the cognitive domains of analyzing, evaluating, and creating, as outlined in Bloom's Revised Taxonomy. Both questionnaire items related to this domain received a perfect, reflecting unanimous agreement from teachers on the impact of project-based learning on students' cognitive development.

In practice, teachers observed that students engaged in deeper levels of thinking as they planned and executed their projects. Analysis occurred during the information-gathering and organization phases, evaluation was fostered through peer review and self-assessment, and creation took place in the form of final products such as presentations, videos, and booklets. These experiences required students to synthesize information, apply language knowledge in new contexts, and reflect critically on their work. Moreover, the authenticity of project-based learning tasks supported the transfer of skills beyond the classroom. Teachers noted that students applied newly acquired vocabulary and

grammar structures in real-life contexts and spontaneous discussions. This context-rich exposure not only improved linguistic competence but also enhanced cognitive engagement, as supported by (Retnawati et al. 2018) and (Almulla 2020).

The research aligns with previous findings by (Isnani 2023) and (Takiddin, Jalal, and Neolaka 2020), which emphasized that project-based learning promotes metacognition, independent reasoning, and collaborative problem-solving. In the current study, project-based learning not only helped students understand the material more deeply but also encouraged them to become active learners capable of thinking beyond rote memorization. These findings validate the pedagogical potential of project-based learning as a holistic instructional strategy that strengthens both language acquisition and higher-order cognitive development in English language learning contexts.

Challenges and Supporting Factors in Applying Project-Based Learning

Despite the evident benefits, teachers also identified several challenges in applying Project-Based Learning in English classrooms. One of the most significant obstacles was insufficient class time. All respondents expressed that the time allocated within regular class schedules was inadequate for completing a full project cycle—from planning to presentation. This issue limited the depth and quality of project implementation and often forced teachers to condense or skip stages.

Another notable challenge involved assessment. Teachers reported difficulties in objectively evaluating individual student contributions within group projects. While project-based learning encourages collaboration, it also requires robust assessment tools to fairly measure student performance. This complexity demands more comprehensive rubrics and a greater investment of time in both observation and feedback.

Additionally, the process of guiding students through higher-order thinking tasks posed challenges, especially for learners who were not accustomed to independent exploration and problem-solving. Teachers indicated that scaffolding students' cognitive engagement required consistent support, clear instructions, and

often, differentiated strategies to address diverse learning needs. On the other hand, several supporting factors facilitated the implementation of project-based learning. All teachers agreed that they had access to adequate media and resources, such as internet-connected devices, presentation tools, and learning platforms. These tools allowed for greater creativity and flexibility in task design and student expression.

Another key supporting factor was student motivation. Teachers observed that when students were given autonomy in choosing topics and formats, their enthusiasm increased. This sense of ownership improved learner engagement and accountability. Moreover, the collaborative nature of project-based learning encouraged peer support and reduced performance anxiety, creating a more inclusive learning environment. These findings echo those of (Hidayah, Puspa Arum, and Apriyansa 2021), who acknowledged that while project-based learning is a highly effective instructional model, its implementation must be supported by appropriate scheduling, professional development, and assessment practices. Without such systemic support, the demands of project-based learning may outweigh its benefits for both teachers and students.

CONCLUSION

This study concludes that Project-Based Learning is well understood and positively perceived by English teachers as an effective method for promoting Higher-Order Thinking Skills. The implementation of project-based learning encourages active student participation, supports language learning through real-world tasks, and fosters critical, analytical, and creative thinking.

However, successful application of project-based learning in English classrooms also depends on overcoming practical challenges such as time constraints and assessment complexity. To optimize its effectiveness, educators should be provided with proper training, adequate instructional time, and access to supportive resources. Project-based learning has significant potential to support the goals of the Merdeka Curriculum and enhance both linguistic and cognitive skills in EFL learners. Future studies are encouraged to expand this research by involving more participants and different educational levels.

REFERENCE

- Almulla, Mohammed Abdullatif. 2020. "The Effectiveness of the Project-Based Learning (PBL) Approach as a Way to Engage Students in Learning." *SAGE Open* 10(3). doi: 10.1177/2158244020938702.
- Blumenfeld, Phyllis C., Elliot Soloway, Ronald W. Marx, Joseph S. Krajcik, Mark Guzdial, and Annemarie Palincsar. 1991. "Motivating Project-Based Learning: Sustaining the Doing, Supporting the Learning." *Educational Psychologist* 26(3-4):369-98. doi: 10.1080/00461520.1991.9653139.
- Halim, Nixon, Melkisedek Boys, Farid Fahmi, Kayoko Nozaki, and Matsuzaki Wuttipong. 2023. "Implementation of Project-Based Learning in Indonesian EFL Class Between 2017 to 2022." *Journal Neosantara Hybrid Learning* 1(2):94-109. doi: 10.55849/jnhl.v1i2.94.
- Hidayah, Nurul, Anisa Puspa Arum, and Ari Apriyansa. 2021. "Project-Based Learning (PjBL): Advantages, Disadvantages, and Solutions to Vocational Education (in Pandemic Era)." doi: 10.4108/eai.9-9-2021.2313669.
- Isnani, Tuti. 2023. "Implementation of Project-Based Learning Approach in Improving Critical Thinking Skills of Elementary School Students." *Jurnal Ar Ro'is Mandalika (Armada)* 3(1):47-55. doi: 10.59613/armada.v3i1.2844.
- Luchang, Alice Laong, and Nurfaradilla Binti Mohamad Nasri. 2023. "Project-Based Learning (Pbl) In Enhancing Students' Higher-Order Thinking Skills (Hots): Systematic Literature Review." *International Journal of Academic Research in Progressive Education and Development* 12(4). doi: 10.6007/ijarped/v12-i4/20404.
- Miles, Matthew B., Huberman A. Michael, Saldana Johnny. 2019. *Qualitative Data Analysis: A Methods Sourcebook*. Vol. 11.
- Patton, Alec. 2012. *Work That Matters: The Teacher's Guide to Project-Based Learning*. Vol. 1.

- Retnawati, Heri, Hasan Djidu, Kartianom, Ezi Apino, and Risqa D. Anazifa. 2018. "Teachers' Knowledge about Higher-Order Thinking Skills and Its Learning Strategy." *Problems of Education in the 21st Century* 76(2):215–30. doi: 10.33225/pec/18.76.215.
- Setiawan, Johan, Ajat Sudrajat, Aman, and Dyah Kumalasari. 2021. "Development of Higher Order Thinking Skill Assessment Instruments in Learning Indonesian History." *International Journal of Evaluation and Research in Education* 10(2):545–52. doi: 10.11591/ijere.v10i2.20796.
- Silvia Husni, Sofia, and Siti Aisah Ginting. 2023. "Higher Order Thinking Skills Of Reading Exercises In English Textbook 'Bahasa Inggris: Work In Progress' Based On Revised Bloom's Taxonomy." *Genre* 12(3):106–14.
- Takiddin, Takiddin, Fasli Jalal, and Amos Neolaka. 2020. "Improving Higher Order Thinking Skills through Project-Based Learning in Primary Schools." *TARBIYA: Journal of Education in Muslim Society* 7(1):16–28. doi: 10.15408/tjems.v7i1.14052.
- Thomas, John, Barbara Condliffe, and Janet Quint. 2000. "Whatever Form a Project Takes , It Must Meet These Criteria To Be Gold Standard Pbl ." *Interdisciplinary Journal of Problem-Based Learning* 22(1):1–18.
- Yogi Anggraena, Dion Ginanto, Nisa Felicia, Ardanti Andiarti, Indriyati Herutami, Leli Alhapip, Dwi Setiyowati. 2022. "Panduan Pembelajaran Dan Asesmen Kurikulum 2013." *Seminar Pendidikan IPA Pascasarjana UM* 123.