
Enhancing EFL students' speaking ability through project-based learning: A study at an Indonesian university

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Abstract

This study examines the effectiveness of Project-Based Learning (PBL) in improving English as a Foreign Language (EFL) students' speaking ability at Universitas Muhammadiyah Muara Bungo. A mixed-method design was employed, involving second-semester students of the English Education Department. Data were collected through speaking performance assessments and open-ended surveys. Quantitative results indicated a significant improvement in students' speaking scores, with the average increasing from 78 to 88 across project tasks. Qualitative findings revealed enhancements in vocabulary, grammar, fluency, and confidence. Students reported that repeated practice, collaborative work, and authentic speaking tasks contributed to reduced anxiety and improved performance. The findings suggest that PBL not only enhances linguistic competence but also supports psychological readiness in speaking. Therefore, integrating project-based activities into speaking instruction is recommended to promote active learning and improve students' communicative competence.

Keywords

Confidence, EFL learners, project-based learning, speaking ability, student-centered learning

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Introduction

Project-Based Learning (PBL) has gained increasing attention in contemporary education due to its potential to promote active, student-centered learning. This approach encourages learners to engage in meaningful tasks, collaborate with peers, and apply knowledge in real-world contexts. Recent research indicates that PBL can improve cognitive development as well as communication skills, creativity, and learner autonomy (Kokotsaki et al., 2016; Yang et al., 2024). In language learning, particularly in English as a Foreign Language (EFL) context, PBL is considered an effective strategy for developing productive skills, such as speaking.

Speaking is widely recognized as one of the most important yet challenging skills for EFL learners. It involves a complex process of constructing meaning by integrating linguistic components such as vocabulary, grammar, pronunciation, and fluency. In addition, speaking requires learners to process information in real time while managing psychological factors such as anxiety and confidence (Zhang et al., 2020). As a result, many students struggle to express their ideas clearly and confidently, especially in formal or public speaking situations.

In the context of Indonesian higher education, this issue remains persistent. Previous observations have shown that students in English education programs often experience low confidence when speaking English, despite years of formal instruction. Many students report difficulties such as limited vocabulary, fear of making mistakes, and loss of ideas during speech. These challenges are not only linguistic but also psychological, indicating the need for instructional approaches that address both aspects simultaneously.

Project-based learning is a good way to deal with these problems. By engaging students in authentic speaking tasks such as presentations, discussions, and video projects, PBL creates opportunities for repeated practice, collaboration, and meaningful communication. Such experiences can help learners gradually build fluency, improve language accuracy, and develop confidence in expressing their ideas. Recent research suggests that PBL can significantly reduce speaking anxiety and enhance learners' confidence through active participation and engagement in real-life tasks (Nguyen et al., 2023; Wang & Zhang, 2021).

Despite its potential, empirical studies focusing specifically on PBL's impact on speaking confidence and performance in Indonesian EFL contexts remain limited. Most existing research tends to emphasize general language development or classroom engagement rather than addressing persistent psychological barriers such as low confidence and speaking anxiety. Furthermore, there is a lack of context-specific studies examining how PBL influences students who experience long-standing difficulties with speaking across different cohorts.

Therefore, this study aims to examine the effectiveness of project-based learning in improving EFL students' speaking ability and confidence at Universitas Muhammadiyah Muara Bungo. This study contributes to sport education (remove if not needed for this paper)—and, more broadly, to language education—by providing empirical evidence on how student-centered, project-based approaches can enhance both linguistic performance and psychological readiness for speaking. By focusing on a specific institutional context, this study also offers practical insights for educators seeking to design more engaging and effective speaking instruction.

Speaking skill as a complex and multidimensional process in EFL learning

Speaking is widely recognized as one of the most complex skills in learning English as a Foreign Language (EFL) due to its multidimensional nature, which involves both linguistic and psychological components. Unlike receptive skills such as reading and listening, speaking requires learners to produce language in real time while simultaneously managing vocabulary retrieval, grammatical accuracy, pronunciation, and fluency. In addition, learners must process meaning, respond to interlocutors, and maintain coherence in communication. Recent research highlights that speaking is not merely a linguistic activity but also a cognitive and affective process that demands high levels of mental coordination (Zhang et al., 2020).

One of the key challenges in speaking lies in the integration of its core components, including vocabulary, grammar, pronunciation, fluency, and comprehension. These elements must function simultaneously for effective communication to occur. For example, limited vocabulary can hinder learners' ability to express ideas, while weak grammatical control may affect clarity and accuracy. Similarly, lack of fluency often results in hesitation and reduced communicative effectiveness. According to Goh (2017), successful speaking performance depends on the balanced development of these components, supported by continuous practice and meaningful interaction.

Beyond linguistic aspects, psychological factors play an important part in determining speaking performance. Speaking anxiety, low confidence, and fear of making mistakes are among the most common barriers faced by EFL learners. Studies have indicated that learners often experience communication apprehension, particularly in formal or evaluative settings, which negatively affects their fluency and willingness to participate (Wang & Zhang, 2021). This is particularly evident in classroom environments where students are required to speak in front of peers, which increases pressure and self-consciousness.

Furthermore, individual differences such as prior learning experience, exposure to English, and personality traits also influence speaking ability. Learners with greater exposure to communicative practice tend to demonstrate higher levels of fluency and confidence than those who rely primarily on traditional, teacher-centered instruction. Zhang et al. (2020) emphasize that opportunities for interaction and authentic communication are essential for developing speaking proficiency, as they allow learners to practice language in meaningful contexts.

In the Indonesian EFL context, these challenges are even more pronounced. Many students experience persistent difficulties with speaking despite years of formal education, suggesting that traditional instructional approaches may not adequately address the complexity of speaking development, particularly in terms of fostering real-life communication skills and confidence in using the language. Therefore, there is a growing need for innovative teaching strategies that integrate both linguistic and psychological dimensions of speaking. Understanding speaking as a multidimensional process provides a foundation for selecting appropriate pedagogical approaches, such as project-based learning, which can support both skill development and affective improvement.

Project-based learning as a student-centered approach in language education

Project-Based Learning (PBL) has emerged as a prominent student-centered approach that emphasizes active learning, collaboration, and real-world application of knowledge. In contrast to traditional teacher-centered methods, PBL positions students as active participants in the learning process, engaging them in meaningful tasks that require critical thinking, problem-solving, and communication. Recent studies have highlighted the effectiveness of PBL in enhancing both cognitive and affective learning outcomes across various educational contexts (Kokotsaki et al., 2016; Yang et al., 2024).

One of the defining characteristics of PBL is its focus on authentic tasks that simulate real-life situations. In language learning, this involves activities such as presentations, discussions, video production, and collaborative projects that require students to use the target language in meaningful ways. These tasks not only provide opportunities for language practice but also promote deeper understanding through experiential learning. According to Cao (2024), PBL supports self-regulated learning by encouraging students to plan, monitor, and evaluate their own learning processes.

Another important aspect of PBL is its emphasis on collaboration and interaction. Students work in groups to complete projects, which fosters communication, negotiation of meaning, and peer feedback. These interactions are essential for language development, as they expose learners to diverse linguistic input and encourage active language use. Wang and Zhang (2021) found that collaborative project-based activities significantly reduce speaking anxiety and increase learners' willingness to communicate.

In addition, PBL (project-based learning) provides opportunities for repeated practice and performance cycles. Students typically engage in multiple stages of project development, including planning, rehearsing, presenting, and revising. This iterative process allows learners to refine their language skills over time, leading to improvements in fluency, accuracy, and confidence. Repetition in meaningful contexts is particularly important for language acquisition, as it helps learners internalize linguistic structures and develop automaticity (Yang et al., 2024).

Furthermore, PBL aligns with contemporary theories of language learning, such as Communicative Language Teaching (CLT) and Task-Based Language Teaching (TBLT), which emphasize meaningful communication and authentic language use. By integrating these principles, PBL creates a dynamic learning environment that supports both linguistic development and learner engagement.

Despite its advantages, implementing PBL requires careful planning and educator support. Teachers must design appropriate tasks, provide guidance, and create a supportive learning environment to ensure effective outcomes. Nevertheless, the growing body of research suggests that PBL is a powerful pedagogical approach that can transform traditional language classrooms into interactive and learner-centered spaces.

The role of project-based learning in enhancing speaking performance and confidence

Recent studies have increasingly focused on the role of project-based learning (PBL) in improving speaking performance and confidence among EFL learners. Unlike traditional instructional methods that often emphasize passive learning, PBL actively engages students in communicative tasks that require them to use language for meaningful purposes. Research has demonstrated that this active engagement significantly enhances both linguistic competence and psychological readiness in speaking.

One of the primary benefits of PBL is its ability to provide learners with extensive opportunities for oral practice. Through activities such as presentations, discussions, and video projects, students are required to produce language regularly and in varied contexts. This aligns with the output hypothesis, which suggests that language production plays a critical role in language acquisition. By engaging in repeated speaking activities, learners can develop greater fluency and accuracy over time (Nguyen et al., 2023).

In addition to improving linguistic skills, PBL also addresses affective factors such as confidence and anxiety. Research indicates that students who participate in project-based activities tend to experience lower levels of speaking anxiety and higher levels of self-confidence. This is largely due to the supportive and collaborative nature of PBL, which allows learners to practice in a low-pressure environment before performing in front of others (Wang & Zhang, 2021). As a result, students become more willing to take risks and express their ideas in English.

Another important factor is the authenticity of tasks in PBL. When learners engage in real-world activities, such as creating videos or delivering presentations, they perceive the tasks as meaningful and relevant. This increases motivation and encourages deeper engagement with the learning process. According to Yang et al. (2024), authentic tasks enhance learners' intrinsic motivation, which in turn contributes to improved performance and confidence.

Furthermore, PBL supports the development of self-efficacy, which is a key determinant of language learning success. As students complete projects and observe their progress, they develop a stronger belief in their abilities. This positive self-perception reinforces their willingness to participate in future speaking activities. Nguyen et al. (2023) found that learners who engaged in project-based speaking tasks reported significant improvements in both performance and confidence.

Despite these benefits, there is still limited research focusing specifically on the Indonesian EFL context, particularly at the higher education level. Numerous studies have investigated PBL in broad terms, neglecting enduring challenges such as diminished speaking confidence and anxiety among university students. Therefore, this study seeks to fill this gap by providing empirical evidence on how PBL can enhance both speaking performance and confidence in a specific educational setting.

Methodology

This study employed a mixed-method research design, combining quantitative and qualitative approaches to obtain a comprehensive understanding of the effect of project-based learning (PBL) on students' speaking ability. The quantitative component measured students' speaking performance, while the qualitative component explored students' perceptions and experiences during the learning process.

The research was conducted at the English Education Department of Universitas Muhammadiyah Muara Bungo, involving second-semester students who were enrolled in a speaking course. The participants were selected using a purposive sampling technique, as they were considered appropriate for examining the implementation of project-based learning in speaking instruction. A total of 10 students participated in the speaking projects, and 6 were selected for the qualitative phase through open-ended surveys.

Data were collected through two main instruments: speaking performance assessments and open-ended questionnaires. The speaking assessment was conducted through a series of project-based tasks, including individual and group projects such as speeches, presentations, and video recordings. Students' performance was evaluated based on several criteria, including fluency, pronunciation, grammar, vocabulary, and comprehension, following established speaking assessment frameworks (Tomak, 2021). Scores from multiple projects were used to track students' progress over time.

In addition, qualitative data were collected through open-ended survey questions, allowing students to share their experiences, challenges, and perceived improvements in their speaking skills. This approach provided deeper insights into psychological aspects, such as confidence, anxiety, and motivation.

The quantitative data were analyzed using descriptive statistics, including comparisons of mean scores across project tasks to examine improvements in speaking performance. Meanwhile, the qualitative data were analyzed using thematic analysis, where students' responses were categorized into key themes such as vocabulary development, grammar improvement, fluency, and confidence.

To ensure the validity of the findings, data triangulation was applied by comparing results from speaking assessments and students' self-reported experiences. This combination of methods allowed the researcher to obtain both measurable outcomes and an in-depth understanding of the effectiveness of project-based learning in improving students' speaking ability.

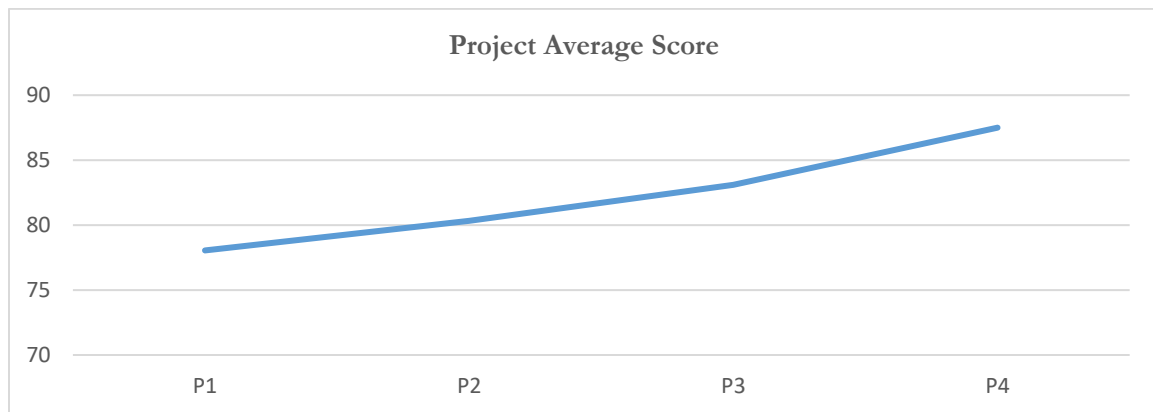
Findings

Based on data collected through the speaking practice projects and the survey, project-based learning led to significant improvement in students' speaking ability. However, the students encountered some challenges in completing the projects, such as time management issues, difficulty in collaborating with peers, and a lack of resources or guidance. The detailed data can be found below.

Speaking project

As mentioned before, the students had projects to conduct on various topics related to the speaking class materials. Some projects were conducted individually, and some projects were group projects. The students completed the projects and submitted them, and each project was then assessed on fluency, pronunciation, intonation, word choice, grammar, and comprehension (Tomak, 2021). Based on the data, most students have improved their speaking ability, but some have not. The following chart displays the data on students' project assessments.

Figure 1. *Project average score*



Based on the chart, the curve shows positive progress. The students experienced significant improvement from the first project to the subsequent projects. In the first project, the average score was 78; in the last project, it improved to 88.

Survey

To obtain additional data, the survey was distributed to six students using a purposive sampling technique. The survey was designed with open-ended questions that required the students to explain/essay answers. The students were given the authority to answer the question without any pressure or intervention; they used a blind answer sheet. Those questions asked about the students' process and achievement after learning to speak through project-based learning. Based on the survey, most students reported a positive experience with this learning model. Furthermore, the participants confirmed that they had made significant improvements in their vocabulary, pronunciation, grammar, fluency, and confidence. The data can be displayed as follows.

Vocabulary improvement

Based on the data from this research, most students benefited from this project-based learning in strengthening their vocabulary. All interviewees confirmed the survey information.

Learning by practicing encouraged them to learn and use more vocabulary. When the question came up about how far project-based learning improved their vocabulary, all of them provided the following information.

"A pretty long extend"

"The speaking class project can improve vocabulary to a significant extent., they are encouraged to use a wide range of vocabulary and to learn new words and phrases." [LR]

"Since implementing the speaking class project, I know more words than before." [NB]

"It's far enough that at first I didn't know any other vocabulary, speaking classes could give me new vocabulary." [FT]

"Speaking class projects can significantly improve vocabulary as students are exposed to a variety of topics, themes, and contexts through their project work. By actively engaging in discussions, presentations, and debates, students encounter new words and phrases, expanding their vocabulary and language proficiency." [NR]

"It's easier to remember and knows more about English" [ZR]

Based on the data above, the project's learning-to-speak component helped students increase their vocabulary. Moreover, the participants also explain.

".....provides an opportunity for students to practice using vocabulary in context, which can help reinforce their understanding and retention of new words." [LR]

The students repeatedly emphasized that the project-based learning encouraged them not only to learn new words but also to apply them in real communication actively. This aligns with the nature of project-based learning (Mali & Calvin, 2016), which positions learners as active participants who must negotiate meaning, articulate ideas, and collaborate with peers. Such conditions naturally foster repeated exposure to new lexical items, thereby strengthening vocabulary acquisition. Their responses, such as describing the improvement as "a pretty long extent" and "a significant extent," reinforce the idea that PBL creates a conducive environment for meaningful vocabulary learning.

Several participants elaborated that the speaking class projects exposed them to a variety of topics and contexts. This exposure allowed them to learn words that might not emerge in traditional, textbook-based instruction. NR, for example, stated that engaging in discussions, presentations, and debates introduced them to a wider range of vocabulary. This suggests that project-based learning broadens learners' input by embedding vocabulary learning in authentic, theme-based tasks. Similarly, NB and FT highlighted personal progress by noting that they now "know more words than before" and that they gained vocabulary they previously did not know at all.

Another important aspect is retention. According to LR, PBL allows learners to practice vocabulary "in context," which helps reinforce both understanding and long-term retention. This point is critical: vocabulary learned in isolation is often difficult to recall, whereas vocabulary used repeatedly in meaningful tasks is more likely to be retained. ZR also added that learning became "easier to remember," suggesting that contextualized use strengthens memory.

Overall, the convergence of student perspectives supports the conclusion that project-based learning is highly effective in enhancing vocabulary mastery in speaking classes. The combination of active engagement, contextualized practice, exposure to varied topics, and opportunities for meaningful communication collectively contributes to substantial vocabulary growth. This is consistent with project-based learning theory, which emphasizes authentic language use, learner autonomy, and collaboration as essential elements that promote deeper linguistic development (Cao, 2024).

Grammar improvement

The interviewees stated that they found some improvements in their grammar use in speaking.

"...speaking class projects can enhance grammar skills as students apply grammar rules and structures in their speech activities. Through continuous practice and feedback, students can refine their grammar usage, sentence construction, and overall language accuracy while working on speaking projects." [FR]

"Yes, I'm quite better at grammar." [FT]

"The speaking class project can also improve grammar significantly. By working on projects that require students to communicate effectively, they are encouraged to use correct grammar and sentence structure. Additionally, the project provides an opportunity for students to practice using grammar in context, which can help reinforce their understanding and retention of grammar rules." [NR]

"Thanks God, it's good because with study and practice, I can understand the use of good grammar better." [ZR]

All participants reported positive improvements in their grammar through the projects. The speaking projects put them into a new habit of speaking and checking their grammar several times. It helps them learn unconsciously by doing, as they reported noticeable improvement in their grammar use because of participating in speaking class projects. Several respondents explicitly mentioned that the project-based activities encouraged them to apply grammatical structures more accurately during oral communication. For instance, FR noted that speaking projects allowed students to "enhance grammar skills as students apply grammar rules and structures in their speech activities," emphasizing the importance of practice and feedback in developing grammatical accuracy. Similarly, FT provided a straightforward confirmation of

this progress, stating, "Yes, I'm quite better at grammar," which reinforces the perception that consistent engagement with project tasks fosters linguistic improvement.

In conclusion, participants' responses collectively indicate that speaking projects are an effective medium for grammar development. Because the tasks required students to prepare, rehearse, and revise their spoken output, they were naturally encouraged to monitor and refine their grammatical choices. This process appears to have created a productive habit of self-checking, enabling learners to "learn by doing" in an unconscious yet meaningful way. The findings suggest that integrating project-based activities into speaking instruction not only enhances communicative competence but also significantly improves grammatical accuracy through contextualized, reflective, and repetitive practice.

Speaking fluency

Most participants reported that learning to speak English through projects improved their fluency. The data are shown below.

"It is increased, especially in front of the camera, usually cannot speak confidently in front of the camera." [LR]

"Fluency Improvement. Yaa... After learning through the speaking class project, I have noticed a significant improvement in my fluency.." [FT]

"After learning English through project-based speaking activities, students may experience an improvement in fluency due to regular practice and application of speaking skills in real-life contexts. The interactive and collaborative nature of speaking projects helps students develop fluency by engaging in meaningful conversations and presentations." [NR]

Based on the interview data, most participants perceived notable improvements in their speaking fluency after engaging in project-based speaking activities. This perception is reflected in the statement stated by one participant, noting enhanced fluency and increased confidence when speaking, particularly in front of the camera, an environment often associated with performance anxiety. This suggests that repeated exposure to project tasks may reduce affective barriers, enabling learners to speak more smoothly and confidently. FT similarly emphasized "significant improvement" in fluency, indicating that the structured yet flexible nature of speaking projects creates opportunities for consistent practice, which is essential for fluency development.

Another response further illustrates how the interactive and collaborative design of project-based tasks contributes to fluency gains. It was reported that fluency improvement arises from regular practice in real-life communicative contexts, such as discussions, interviews, and presentations. These findings align with the principles of Communicative Language Teaching (CLT) and Task-Based Language Teaching (TBLT), which emphasize authentic communication as a core mechanism for developing speaking skills. When learners

participate in tasks that require conveying meaning, negotiating ideas, and exchanging information, they naturally increase the speed, ease, and automaticity of their spoken language.

The fluency gains reported in this study can also be understood through the lens of key SLA theories. Swain's output hypothesis suggests that pushing learners to produce language encourages them to reorganize their linguistic knowledge and become more fluent over time. Speaking projects provide abundant opportunities for output, particularly in extended speaking performances, which foster automaticity, a critical component of fluency. In addition, repeated speaking rehearsals align with DeKeyser's Skill Acquisition Theory, which posits that proceduralising of linguistic knowledge occurs when learners engage in frequent, meaningful practice. Over time, this practice results in more rapid and effortless language retrieval, contributing to smoother speech.

Furthermore, the collaborative nature of project-based speaking tasks supports interactional competence, an important dimension of fluency. As students work together, they engage in turn-taking, meaning negotiation, clarification, and feedback. According to Long's Interaction Hypothesis, such interaction facilitates fluency by enabling learners to process input more deeply and adjust their output in real time. The cycle of planning, practicing, receiving feedback, and revising performances common in project-based activities also helps learners reduce hesitations and pauses.

Overall, the participants' reflections demonstrate that project-based speaking activities not only create a meaningful platform for extended oral practice but also encourage the development of communicative confidence and automaticity. These conditions collectively support fluency development, reinforcing previous research that highlights the effectiveness of project-based learning in enhancing oral proficiency. The findings suggest that integrating structured speaking projects into language classrooms offers a pedagogically sound approach for fostering fluency through authentic, interactive, and sustained communicative practice.

Confidence improvement

Based on the interview, most participants stated that project-based learning positively enhances students' speaking confidence. The increase is driven by authentic tasks, collaborative learning, repeated performance opportunities, and learner autonomy. These elements help reduce anxiety and foster a supportive environment in which students feel more confident expressing themselves in English. This improvement is evident in the following responses.

"Yes, I feel my confidence is increased, I could speak in front of camera confidently."
[LR]

"There is improvement... After learning through the speaking class project, I noticed a significant improvement in my confidence." [FT]

"After learning English through projects, I feel more confident expressing my ideas in English." [SR]

"Doing projects makes me braver to speak because I can prepare and practice with my group." [HM]

The findings of this study reveal that project-based learning plays a significant role in enhancing students' confidence in speaking English. Interview data consistently show that learners perceive PBL as a supportive and empowering approach that helps them overcome anxiety and build greater confidence in oral communication. This aligns with previous studies indicating that PBL fosters positive affective outcomes by providing meaningful, authentic, and student-centered learning environments.

Discussion

The findings of this study demonstrate that implementing project-based learning (PBL) resulted in a substantial improvement in students' speaking ability, as evidenced by an increase in average scores from 78 to 88 across successive projects. This upward trend indicates that PBL provides a progressive learning structure in which students continuously refine their speaking performance through repeated engagement in meaningful tasks. From a pedagogical perspective, this improvement reflects the core principle of PBL, which emphasizes learning by doing and authentic task engagement. Unlike traditional teacher-centered approaches, PBL situates learners in active roles where they construct knowledge through exploration, collaboration, and communication. Recent studies confirm that PBL enhances speaking proficiency by integrating cognitive engagement with real-life communication tasks, thereby promoting deeper learning and skill transfer (Benlaghrissi & Ouahidi, 2024; Zhong et al., 2025).

Furthermore, improvements across multiple projects suggest that learning in PBL is cumulative, with each task building on prior experiences. This iterative learning process helps students gradually internalize language skills, which leads to long-term improvements in their speaking skills. In addition, the progressive increase in scores reflects the role of formative assessments embedded within PBL. Each project acts as both a learning activity and an assessment opportunity, enabling students to receive feedback and improve in subsequent performances. This ongoing feedback loop is crucial in language acquisition, as it assists learners in recognizing deficiencies and enhancing their competencies over time (Zhong et al., 2025).

Moreover, the findings indicate that PBL supports learner autonomy and responsibility, as students are required to manage their learning processes. This autonomy fosters deeper engagement and motivation, which are key factors in achieving long-term learning outcomes. As noted by Benlaghrissi and Ouahidi (2024), student-centered approaches such as PBL encourage learners to take ownership of their learning, leading to more meaningful and sustained improvement.

Vocabulary growth

The results indicate that PBL significantly enhances students' vocabulary mastery through meaningful, context-based language use. Students reported learning new words and

phrases as they engaged in discussions, presentations, and collaborative tasks involving diverse topics. Importantly, they also highlighted that vocabulary became easier to remember when used in real communication.

This finding supports recent research emphasizing that vocabulary acquisition is more effective when learners encounter and use words in authentic communicative contexts rather than through isolated memorization (Khofifah & Maulidiyah, 2025; Metri et al., 2025). In PBL environments, learners are exposed to varied input and are required to actively use vocabulary to express ideas, negotiate meaning, and complete tasks.

Additionally, the findings align with usage-based theories of language acquisition, which argue that language is learned through frequent and meaningful use (Zhong et al., 2025). The students' ability to recall and apply vocabulary suggests that PBL supports both receptive and productive vocabulary development.

Another important aspect is the role of topic diversity in PBL, which exposes students to a wide range of lexical items. Unlike traditional instruction that may limit vocabulary to textbook content, PBL encourages exploration of various themes, thereby broadening students' lexical repertoire. This exposure enhances not only vocabulary quantity but also contextual appropriateness in language use. Furthermore, the principle of deep processing explains vocabulary retention in this study, as learners engage cognitively with language through meaningful tasks. When students actively use vocabulary to express ideas, they form stronger mental connections, leading to better retention and recall (Metri et al., 2025). Thus, PBL promotes vocabulary learning that is both functional and durable.

Grammar accuracy

The findings also reveal that students improved their grammatical accuracy through project-based speaking activities. Rather than learning grammar through explicit instruction alone, students developed their understanding of grammatical structures by applying them in authentic speaking contexts. This result is consistent with studies indicating that PBL promotes implicit grammar acquisition, where learners internalize grammatical rules through meaningful communication and interaction (Abdullah & Sunra, 2024; Agustina & Supatmi, 2025). When students are required to convey meaning effectively, they become more aware of their language use.

Moreover, the iterative nature of PBL—comprising planning, rehearsing, revising, and presenting—provides opportunities for feedback and self-correction, which are crucial for grammar development (Zhong et al., 2025). In addition, the findings suggest that PBL encourages noticing and self-monitoring, key processes in second-language acquisition. As learners prepare and revise their speeches, they become more aware of grammatical forms and actively seek to correct errors. This process aligns with Schmidt's Noticing Hypothesis, which emphasizes the importance of awareness in language learning. Another contributing factor is the presence of peer and teacher feedback during project work. Collaborative learning environments allow students to receive immediate feedback from peers and instructors, which helps reinforce correct grammatical usage. Such interaction not only improves accuracy but also promotes a more profound understanding of grammatical structures in context (Abdullah & Sunra, 2024).

Fluency development

The findings show that students' speaking fluency improved significantly after engaging in PBL activities, as indicated by increased speaking ease, reduced hesitation, and greater confidence in delivering speech. It aligns with research demonstrating that PBL enhances fluency by providing learners with extended opportunities for language production and interaction (Castro, 2024; Gunawan, 2025). Through activities such as presentations and discussions, students engage in sustained speaking practice. From a theoretical standpoint, this improvement can be explained by Skill Acquisition Theory and the Interaction Hypothesis, which emphasize the role of practice and interaction in developing fluency (Benlaghrissi & Ouahidi, 2024).

Additionally, the repeated performance of speaking tasks in PBL contributes to the development of automaticity, where learners can produce language more quickly and with less cognitive effort. This automaticity is essential for fluent communication, as it allows learners to focus on meaning rather than form during speech production. Furthermore, integrating authentic communication tasks into PBL enhances fluency by simulating real-life speaking situations. These tasks require learners to respond spontaneously, negotiate meaning, and adapt their language in real time. As a result, students develop not only linguistic fluency but also communicative competence.

Confidence building

Confidence emerged as a critical outcome of this study, with students reporting increased self-assurance in speaking English. This result is consistent with previous studies indicating that PBL positively influences learners' affective factors, including confidence and motivation (Bilal et al., 2025; Purnami & Widiadnya, 2024). Furthermore, confidence plays a crucial role in speaking performance, as confident learners are more willing to participate and take risks (Kaharuddin, 2025).

In addition, the collaborative nature of PBL creates a supportive learning environment where students feel safe to express their ideas without fear of judgment. Working in groups allows learners to share responsibility and receive encouragement from peers, reducing anxiety and building confidence. Moreover, repeated exposure to speaking tasks helps learners gradually overcome communication apprehension. As students become more comfortable speaking in front of others, their anxiety decreases and their confidence increases. This gradual desensitization process is essential for developing effective speaking skills.

Implementation issues

Despite its benefits, the study identified several challenges, including time management difficulties, collaboration issues, and limited resources or guidance. This finding is supported by research indicating that PBL requires careful planning and scaffolding (Khofifah & Maulidiyah, 2025; Novari & Delano, 2025). These challenges suggest that successful PBL

implementation depends heavily on the teacher's ability to design and manage learning activities effectively.

Time management issues may arise due to the complexity of project tasks, which require coordination, research, and preparation. Students may have trouble finishing tasks quickly if they don't have clear deadlines and structured help. Additionally, collaboration challenges emphasize the necessity of explicit instruction in teamwork skills. Teachers should provide guidance on group roles, communication strategies, and conflict resolution to ensure effective collaboration.

Pedagogical value

The findings suggest that PBL is a highly effective instructional approach for developing speaking skills in EFL contexts. By integrating authentic communication, collaboration, and meaningful practice, PBL promotes holistic language development. Importantly, PBL aligns with contemporary educational goals that emphasize 21st century skills, such as critical thinking, communication, collaboration, and creativity. Furthermore, PBL encourages learner-centered education, where students actively construct knowledge rather than passively receive information. This approach improves language skills and prepares learners for real-world communication.

Conclusion and Recommendations

The findings of this study demonstrate that project-based learning (PBL) is an effective approach for improving both speaking performance and confidence among EFL learners in higher education. In the context of English education students at Universitas Muhammadiyah Muara Bungo, PBL strengthens linguistic competence, including vocabulary, grammar, pronunciation, and fluency, while also addressing affective challenges such as low confidence, anxiety, and fear of speaking.

The use of authentic speaking projects—such as speeches, vlogs, news reporting, and master of ceremony tasks—provided students with meaningful opportunities for continuous practice. Through cycles of planning, performing, receiving feedback, and revising, students showed measurable improvement in their speaking ability. They also became more confident, autonomous, and comfortable using English in challenging situations. Importantly, PBL supports not only linguistic development but also psychological readiness. The collaborative and supportive learning environment helps students reduce anxiety, participate actively, and view English as a tool for real communication rather than merely an academic subject.

However, challenges such as time management and collaboration issues indicate the need for careful planning and structured guidance from teachers to ensure that students can effectively navigate these obstacles and fully benefit from the PBL approach. Effective implementation requires clear instructions and continuous support. In conclusion, PBL offers a student-centered and meaningful approach that enhances both linguistic and affective aspects of speaking. It is recommended for integration with speaking instruction to promote active learning and communicative competence. Future research should explore its long-term impact and application across different contexts.

Disclosure Statement

No potential conflict of interest was reported by the authors.

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