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INVESTIGATING EFL STUDENTS' PERCEPTIONS AND PERFORMANCE IN BLENDED PROBLEM-BASED SPEAKING INSTRUCTIONS

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Abstract
This study explores the implementation of the Blended Problem-Based Learning (PBL) approach in teaching EFL speaking and examines students' perspectives on its use. Using a qualitative method, data were collected from 32 fourth-semester students in a Speaking for Academic Purposes course through classroom observations, audio-visual recordings, and open-ended questionnaires. Thematic analysis revealed that Blended PBL promotes active student engagement, critical thinking, collaboration, self-reflection, and the integration of technology. Students reported increased speaking confidence, improved problem-solving skills, and greater autonomy. Despite some challenges, such as technical issues and unstable internet connections, the approach proved effective in enhancing speaking fluency and learner independence. These findings suggest that Blended PBL is a valuable instructional strategy for fostering both language proficiency and essential 21st-century skills in EFL contexts.

Keywords: blended problem-based learning; problem-solving skills; self-directed learning; speaking performance.

Introduction

Speaking is a fundamental skill that EFL programs aim to develop, as it enables learners to express their thoughts and engage in meaningful communication. According to Rajendran and Yunus (2021) and Tiu et al. (2023), speaking proficiency is often regarded as an indicator of successful language acquisition. From a theoretical perspective, speaking is considered the most challenging skill to master due to its spontaneous nature and the dominance of traditional, teacher-centered methods that rely heavily on memorization and limit active student involvement (Sattarova, 2024; Al-Khresheh, 2024).

Research has emphasized that improving speaking competence requires an active learning environment that supports motivation and student engagement (Chen et al., 2021). In response, several constructivist instructional models such as Project-Based Learning, Task-Based Learning, Cooperative Learning, and Problem-Based Learning (PBL) have been proposed to replace passive learning approaches (Du, 2012). These models emphasize learner-centered instruction and active involvement, offering a more meaningful and relevant learning experience.

Among these, PBL is viewed as particularly relevant for contemporary EFL classrooms. Theoretically, PBL encourages students to collaborate, interact, and solve real-world problems, creating an authentic context for language use (Jacobs et al., 2016; Wong & Kan, 2022). Empirical

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studies (e.g., Wijaya, 2022; Haleem, 2022) show that PBL benefits EFL learners by increasing their productivity and communication skills, even among those with limited language proficiency. Baden and Major (2004) identify PBL as a cross-disciplinary instructional method that supports higher-order thinking and promotes deep student engagement. The approach is grounded in the constructivist view that learning is most effective when students are actively involved in problem-solving processes requiring analysis, evaluation, and synthesis (Yuniarti et al., 2024). Furthermore, PBL fosters learner autonomy and collaborative skills, with students taking responsibility for their own learning through group discussions, information gathering, and reflection (Chaiyasit, 2023; Alt & Raichel, 2022; Chukwuere, 2023).

In practice, Problem-Based Learning situates students within realistic scenarios where they must identify, analyze, and resolve problems. As noted by Hidayah et al. (2021), students engage in self-directed learning by drawing on prior knowledge, identifying information gaps, and conducting independent research. They later reconvene to share findings and collaboratively construct solutions. This process is supported by the instructor, who acts not as a lecturer, but as a facilitator guiding students in their inquiry (Herlambang et al., 2024). Blended Problem-Based Learning (Blended PBL) integrates online and face-to-face learning, combining the technological advantages of blended learning with the critical engagement of PBL. The theoretical foundation for Blended PBL emphasizes the flexibility of digital learning platforms alongside the collaborative and problem-solving focus of PBL (Anggraeni et al., 2023). In this model, students participate in problem-solving both synchronously and asynchronously, allowing for deeper reflection and broader access to resources.

Research has confirmed the effectiveness of Blended PBL in promoting speaking skills. For instance, studies by Smith et al. (2022) and Yu and Zin (2023) demonstrate that this approach improves students' critical thinking, encourages autonomous learning, and fosters motivation. Lee and Jo (2023) emphasize that learning becomes more meaningful and retained when students engage in real-world tasks with peer collaboration and digital support. Both theoretical frameworks and empirical evidence support the implementation of Problem-Based Learning, particularly in blended formats, to enhance EFL speaking competence. PBL shifts the learning paradigm from passive reception to active construction, which is essential for developing the communicative competence required in real-life situations. Despite the theoretical and pedagogical promise of Blended PBL, there is limited empirical research on its classroom implementation in EFL speaking courses and how students perceive this model. Understanding both the implementation process and student perceptions is crucial for designing effective speaking instruction and for maximizing the pedagogical benefits of Blended PBL.

To address this gap, this study investigates the application of Blended Problem-Based Learning in teaching speaking to EFL learners, with a focus on implementation practices and learners' perceptions. The novelty of this research lies in its integration of technological and problem-solving elements in speaking instruction a skill often overlooked in blended PBL research. It contributes to the field by offering empirical insights into how this approach can be used to develop speaking proficiency and promote student-centered learning in EFL contexts. Therefore, the objectives of this study are:

1) to explore how the Blended Problem-Based Learning approach is implemented in teaching EFL speaking
2) to analyze students' perceptions of the Blended Problem-Based Learning approach in the EFL speaking classroom.

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Literature Review

Blended problem-based learning in EFL instruction

Problem-Based Learning (PBL) aligns with the constructivist paradigm, which perceives learning and instruction as active, purposeful inquiry and the construction of knowledge by learners. PBL promotes inquiry-driven and knowledge-based methodologies for problem-solving. This approach aims to assist professionals, particularly educators, in addressing genuine, intricate situations or instances (Barrette & Moore, 2011). The instances replicate authentic classroom decision-making, including the evaluation of many views, justification of solutions, assessment of consequences, and reflection on conclusions.

PBL necessitates that group members recognize learning challenges, specifically what must be acquired to address the problem (Smith et al., 2022) Integrated in their area, the group must undertake a problem-solving process that involves gathering information from many sources, explaining their choices, debating results, and evaluating implications to develop a feasible and perhaps novel solution. These abilities and practices are essential for prospective teachers to develop their knowledge bases and identify the underlying trends and difficulties inside their classrooms (Tawfik et al., 2021). If not, students will confront challenges independently and ultimately face difficulties in their classes.

Problem-Based Learning (PBL) emphasizes learning through active knowledge-seeking by students, in contrast to the traditional paradigm's focus on passive information acquisition. This is emphasized within a constructivist framework (Srikan et al., 2021; Osman & Kriek, 2021). Students may acquire knowledge by actively interacting with meaningful challenges articulated with a particular intent using a pedagogical approach known as Problem-Based Learning (PBL). Students can develop cognitive frameworks and cultivate self-directed learning habits by engaging in practice and reflecting on it through this instructional strategy, which creates an environment for collaborative problem-solving (Geduld et al., 2025). This suggests that instructors are neither accountable for supplying essential knowledge for the whole class, nor are they responsible with the role of directing learners to think in the most suitable way. Teachers' enquiries effectively stimulate student cognition. This strategy facilitates more efficient handling of the current circumstance. Bouncken and Kraus (2022) noted that this kind of approach primarily focusses on the student, hence apparently providing better advantages compared to conventional approaches that emphasize the teacher. This is because the method promotes the long-term retention of knowledge.

Abdalla and Gaffar (2011) outline three steps for PBL implementation in education. First, PBL session. This phase explains problem-based learning's aims, including evaluating students' knowledge and experience to help them solve the challenge. This process involves identifying the group leader, assistant, and members. One to two hours should be spent on this activity. The second part of PBL will follow several days of individual study to prepare pupils for the teacher's work. The emphasis will be on sharing students' independent challenge answers before this session. One to two hours should be spent on this. This session promotes active thinking, cooperation, responsibility for tasks, good communication, and timely feedback on learning outcomes; and third PBL session. Final workout should take 1–2 hours. To allow students to question the teachers about the subject touched on. Their group discussion findings must be shared with other groups for feedback. Problem-based learning blended synchronous and asynchronous methodologies. Meet in person simultaneously. Google

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Classroom, Google Meet, or Zoom Meeting will facilitate asynchronous learning. Online and in-person learning will be blended. Online teaching employs Google Classroom, which simplifies research. In-person roundtable discussions generated solutions. Online teachers provide relevant challenges using Google Classroom's "material" technology.

PBL and collaboration

Problem-Based Learning (PBL) is increasingly acknowledged for promoting collaborative engagement, since it motivates students to collaborate in groups on addressing complex real-world issues. This collaborative method enables students to participate actively in conversations, debates, and the synthesis of ideas, resulting in innovative solutions. PBL promotes students to question assumptions, evaluate many perspectives, and conduct critical analyses of situations, hence enhancing critical thinking and problem-solving abilities (Benedicto & Andrade, 2022). Moreover, the collaborative aspect of PBL corresponds with social constructivist theories, which propose that knowledge is co-created via interaction and shared experiences among learners. This method enhances students' comprehension and fosters vital communication and collaboration skills for addressing real-world challenges (AlAli, 2024). Research indicates that PBL fosters a dynamic learning environment in which students collectively investigate complicated topics, enhance their knowledge, and actively participate in reflective activities, therefore implementing the concepts of social constructivism (Chen, 2024; Wu, 2024).

Moreover, social constructivist viewpoints state that learners' growth is enhanced by collaborative interactions with peers, facilitating knowledge construction within a social framework rather than in alone (Wells, 2002). This is apparent in PBL contexts, where knowledge is actively constructed via discourse and collaborative inquiry. Project-Based Learning (PBL) promotes interpersonal skills, notably effective communication, and collaboration, essential for conflict resolution and cooperation in higher education environments. Furthermore, studies demonstrate that the collaborative structure of PBL fosters a feeling of community, enhancing student engagement and accountability (Yu & Zin, 2023). Students indicated enhanced engagement in their learning while collaborating, resulting in increased motivation and achievement (Arsyad et al., 2024). This feeling of collaboration fosters increased involvement and responsibility as students recognize their contributions are vital to the group's advancement (Hishamuddin et al., 2024). Moreover, the prospect of peer-to-peer assessment in problem-based learning enhances students' critical thinking abilities (Abirami et al., 2022). These studies together demonstrate that PBL fosters teamwork and communication, equipping students for success in professional, team-based settings.

PBL and speaking performance

Problem-based learning (PBL) has significantly improved students' speaking abilities by fostering an active, communicative educational setting that promotes verbal engagement and expression. Students engaged in PBL exercises had better outcomes in speaking. Moreover, their behavioral, cognitive, and emotional attitudes towards ELL were more favorable (Guo et al., 2024). By addressing real-world issues and proposing solutions, students enhance their speaking performances, learning to articulate their ideas more effectively and persuasively (Komilova et al., 2022; Ndiung & Menggo, 2024). The collaborative aspect of Problem-Based Learning (PBL) assignments, which often include group work and ongoing oral communication, is vital for

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enhancing students' speaking fluency and precision. Consistent speaking assignments enable students to use the target language in significant, authentic circumstances, which is crucial for enhancing their comfort and skill in speaking (Sharma, 2024). As students engage in these exercises, they get more acquainted with diverse language structures and terminology, therefore augmenting their linguistic abilities. This ongoing engagement with the language enables students to cultivate confidence and enhance their abilities for concise and accurate expression in both formal and informal contexts.

Furthermore, the interactive framework of PBL provides ongoing chances for students to get feedback from peers and instructors, which is essential for enhancing their speaking proficiency. Research demonstrates that constructive feedback in problem-based learning environments enables students to recognize areas for improvement, modify their communication approaches, and use their abilities (Amerstorfer & Freiin von Münster-Kistner, 2021). Incorporating additional speaking exercises, such as collaborative activities, into the curriculum enhanced students' performance and confidence (Agustina, 2022). The research indicated that students' confidence levels enhanced in collaborative settings. PBL exercises necessitate that students assume many roles, such as group leader or presenter, so facilitating experience in numerous communication styles and improving their flexibility in speaking contexts (Šliogerienė et al., 2025). Through collaborative and feedback-oriented experiences, PBL enhances speaking proficiency and prepares students for authentic communication challenges, providing them with significant language skills for many circumstances.

Methodology

Research design and approach of the study

This study employed a qualitative research design to explore the implementation of the Blended Problem-Based Learning (Blended PBL) approach in teaching speaking and to examine students' perspectives on its application. A qualitative approach was chosen because it enables a deep, contextual understanding of complex educational phenomena, particularly how teaching strategies are implemented and experienced by learners in real classroom settings. This study specifically employed a descriptive qualitative design, which was appropriate for addressing the two main research problems: (1) how Blended Problem-Based Learning (PBL) is implemented in teaching speaking, and (2) how students perceive the use of the approach. This design allowed the researcher to explore in-depth both the teaching practices and the students' subjective experiences, which are not easily captured through quantitative methods. To answer the first research question, classroom observations and audio-visual recordings were used to analyze the actual implementation of Blended PBL. To address the second research question, an open-ended questionnaire was administered, and the responses were analyzed using thematic analysis to reveal the meanings students assign to their learning experiences. According to Creswell and Creswell (2017a), qualitative research is used to explore and understand the meaning individuals or groups ascribe to a social or human problem, involving complex and rich data collection. Thus, this design enabled the study to provide detailed and meaningful insights into the pedagogical strategies and student responses within the Blended PBL speaking class context.

Participants and settings

The participants in this study were fourth-semester students enrolled in the Speaking for Academic Purposes course within the English Education Study Program at the Faculty of Teacher

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Training and Education, Baturaja University, during the 2024–2025 academic year. A total of 32 students, aged between 19 and 21 years, were involved in the study. These participants were selected using purposive sampling, a technique widely used in qualitative research to ensure the inclusion of information-rich cases that are especially relevant to the research objectives (Creswell & Creswell, 2017b).

The rationale for selecting these participants lies in their direct engagement with the targeted instructional approach—Blended Problem-Based Learning (Blended PBL)—in a course that explicitly focuses on developing speaking skills in academic contexts. Their course enrollment ensured that they had adequate background knowledge and contextual exposure to meaningfully reflect on and respond to the research instruments. Furthermore, this group of learners was accessible to the researchers and represented a typical case of undergraduate EFL students undertaking speaking-oriented instruction, making them suitable for in-depth qualitative exploration (Tisdell et al., 2025).

Data collection and analysis

This study used three data collection tools: classroom observation, audio-video recordings, and an open-ended questionnaire to explore how Blended Problem-Based Learning (Blended PBL) was implemented and perceived in a speaking course:

Classroom observation and audio-video recordings

The teaching process was observed across ten weekly sessions using a structured checklist covering pre-class preparation, in-class activities, peer collaboration, classroom environment, and post-class reflection. Each session was audio-video recorded to support observation accuracy and allow for detailed review of classroom interaction (Creswell & Poth, 2018).

Open-ended questionnaire

At the end of the instructional cycle, students completed a modified questionnaire (based on Syarasifa, 2018) to express their perceptions of the Blended PBL approach. The instrument was validated by a panel of three experts: two university lecturers with doctoral degrees in education and instructional design, and one senior practitioner with extensive experience in blended learning implementation. The validation process ensured content clarity, relevance, and alignment with the study objectives. The questionnaire also allowed students to freely describe their experiences and challenges.

All data were transcribed and analyzed using thematic analysis following the six-phase framework outlined by Braun and Clarke (2006); data familiarization, initial coding, theme development, theme refinement, naming themes, and report writing. The first author served as the primary coder, engaging deeply with the data to identify meaningful patterns, while maintaining a reflexive journal to minimize bias and enhance analytic rigor. Emerging themes captured students' engagement, collaboration, and development in speaking performance. To ensure trustworthiness, the study employed multiple strategies, including triangulation of data sources (e.g., questionnaires, open-ended responses, and field notes), thick description of the context and participants, peer debriefing with two fellow researchers, and maintaining an audit trail documenting analytic decisions (Lincoln & Guba, 1985). The criteria of credibility, transferability, dependability, and confirmability were systematically addressed to strengthen the validity and reliability of the findings.

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Results

How is blended problem-based learning implemented for teaching EFL speaking?

The implementation of Blended Problem-Based Learning (Blended PBL) in teaching EFL speaking was explored through classroom observations, audio-visual recordings, and digital documentation via Google Classroom and Zoom. These data sources were analyzed thematically (Braun & Clarke, 2006) to capture how the five stages of Blended PBL Preparation, Presentation, Practice, Self-Evaluation, and Expansion were realized in practice. The analysis identified key instructional and learning dynamics that occurred during each stage, illustrating how this approach supports the development of speaking skills in an EFL context. The thematic findings are summarized in the table below:

Table 1. *Thematic analysis of the blended problem-based learning implementation for teaching speaking*

Themes	Descriptions	Stages of PBL
Active Student Engagement	Students actively participate in discussions and group work, solving real-world problems.	All stages
Facilitated Learning	The lecturer guides and supports students as they explore and solve problems collaboratively.	Presentation, Practice
Integration of Technology	Google Classroom and Zoom facilitate learning and collaboration.	Preparation, Presentation
Critical Thinking	Students analyze and solve real-world problems through group discussions.	Presentation, Practice
Reflection and Self-Evaluation	Students evaluate their own speaking performance and track their improvement.	Self-Evaluation
Peer Collaboration	Peer feedback and group work enhance speaking practice and build a supportive learning community.	Practice, Presentation

The implementation of Blended Problem-Based Learning (Blended PBL) in teaching EFL speaking was analyzed using three main instruments: classroom observations, audio-visual recordings, and digital documentation through Google Classroom. Classroom observation data revealed that students were actively engaged in group discussions, Q&A sessions, and problem-based speaking tasks. These activities reflected the themes of Active Student Engagement and Peer Collaboration, particularly during the Practice and Expansion stages, as students appeared motivated and took ownership of their speaking responsibilities. Meanwhile, analysis of Zoom class recordings showed that the lecturer consistently acted as a facilitator, encouraging students to ask questions, generate ideas, and speak spontaneously. These findings support the themes of Facilitated Learning and Critical Thinking, and further revealed improvements in students' confidence and fluency in speaking.

Digital documentation from Google Classroom demonstrated structured and purposeful use of technology for organizing tasks, providing instructions, and collecting student reflections. These

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practices confirmed the Integration of Technology theme and showed students' ability to self-assess their progress, in line with the Reflection and Self-Evaluation theme. Altogether, the data from the three instruments provide strong evidence that Blended PBL was effectively implemented across the five instructional stages Preparation, Presentation, Practice, Self-Evaluation, and Expansio leading to a learner-centered approach that supports speaking development. These findings clearly align with the first research objective, as they show that the Blended PBL approach not only enhances student speaking participation but also cultivates critical thinking, collaboration, and autonomy essential components for effective language learning in the 21st-century classroom.

Students' perceptions regarding the Blended Problem-Based Learning approach used in the classroom?

The thematic analysis of the open-ended questionnaire data revealed six key themes that represent the students' perceptions on the use of the Blended Problem-Based Learning approach on students' speaking ability. The descriptions of the results were described in Table 1.

Table 2. *Thematic analysis of the students' perspectives on the use of blended problem-based learning approach*

Themes	Sub-Themes
Improvement in Speaking Confidence	Increased Participation Overcoming Fear and Anxiety Fluency Improvement
Enhancement of Critical Thinking and Problem-Solving Skills	Analytical Thinking Creative Problem-Solving Collaboration in Problem-Solving
Challenges with Technical Issues and Connectivity	Internet Connectivity Problems Technical Difficulties During Virtual Sessions Disruption of Group Discussions
Collaborative Learning and Group Dynamics	Peer-to-Peer Learning Leadership and Collaboration Group Cohesion and Support
Real-World Relevance and Application	Practical Application of Knowledge Preparation for Real-Life Challenges Meaningful Learning Experience
Self-Direction and Independent Learning	Increased Self-Direction Lack of Immediate Feedback Challenges of Independent Study

The thematic analysis of Table 2 reveals that the Blended Problem-Based Learning approach for teaching speaking is emerging with six primary themes: Improvement in speaking confidence, Enhancement of critical thinking and problem-solving skills, Collaborative learning and group dynamics, Real-world relevance and application, Challenges with technical issues and connectivity, and Self-direction and independent learning. Additional details of the themes above are given below.

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Improvement in speaking confidence

One of the most significant positive outcomes reported by students was an improvement in their speaking confidence. The Blended PBL approach allowed students to engage in group discussions and problem-solving tasks in a low-pressure environment, where they could practice speaking without the fear of formal assessments or solo presentations. This continuous practice, paired with a supportive group dynamic, enabled students to gradually overcome their fear of making mistakes. Peer feedback played a crucial role in boosting their self-esteem, helping them become more comfortable speaking in English. This theme reflects how regular, collaborative speaking opportunities enhanced students' fluency and confidence over time.

In the improvement in speaking confidence theme, students highlighted significant progress in their speaking abilities as a result of the Blended Problem-Based Learning (PBL) approach. One sub-theme, Increased Participation, was frequently mentioned. Students felt more encouraged to participate in discussions, as the collaborative nature of the approach fostered a supportive environment.

> "I enjoyed collaborating with my classmates during the problem-solving activities because it helped me practice speaking more," (S1)
> "I became more comfortable speaking in English," (S10)

Based on the statements above, those are emphasizing the increased ease with which they spoke. This indicates how group interactions contributed to build their confidence. Another sub-theme, overcoming fear and anxiety, also emerged. Blended PBL allowed students to practice in less formal settings, which helped reduce their fear of speaking.

> "The real-life problem made discussions more interesting, and I was able to improve my fluency through continuous practice." (S7)
> "The blended PBL approach gave me more opportunities to participate, making me more confident in my speaking abilities." (S4)

Lastly, the sub-theme of fluency improvement was prevalent, as many students noted their enhanced speaking fluency after regular practice.

> "The discussions encouraged me to think more clearly, which helped me articulate my thoughts better." (S9)
> "The more I spoke, the more fluent I became in expressing my ideas." (S5)

Enhancement of critical thinking and problem-solving skills

Blended PBL effectively fostered students' critical thinking and problem-solving skills. Rather than merely memorizing information, students were encouraged to think deeply about real-world problems, analyze various perspectives, and synthesize information to find viable solutions. The collaborative nature of the learning approach also facilitated the development of problem-solving

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abilities, as students engaged in discussions, debated different viewpoints, and built on each other's ideas. This theme highlights how Blended PBL nurtures students' ability to think critically and reason logically, both of which are essential skills for effective communication and speaking.

The Enhancement of Critical Thinking and Problem-Solving Skills theme highlighted how students' analytical abilities were sharpened through the Blended PBL approach. The sub-theme Analytical Thinking was significant, with many students noting that the approach required them to think critically before speaking.

> "The problem-solving tasks make me think critically before speaking," (S1)
> "I had to think critically to provide relevant solutions." (S5)
> "Before presenting, I had to analyze the information and ensure it made sense." (S14)

Based on the statements, it indicated that the pre-discussion preparation encouraged deeper thought. Another sub-theme, Creative Problem-Solving, was evident, with students mentioning how Blended PBL pushed them to find innovative solutions to real-world issues.

> "I had to come up with creative solutions in our group discussions, and it was challenging but rewarding." (S6)
> "We really had to think outside the box to solve the problems effectively." (S8)

Finally, the sub-theme of Collaboration in Problem-Solving emerged as students worked in groups to tackle complex issues.

> "By discussing, students can hear other perspectives, consider different solutions, and apply effective problem-solving strategies." (S9)
> "Working with others helped me see different approaches, and together, we solved problems more effectively." (S14)
> "The collaboration in solving real-world problems enhanced my problem-solving ability." (S3)

Challenges with technical issues and connectivity

Despite the many advantages of Blended PBL, students encountered technical challenges that hindered the effectiveness of the approach. Issues such as poor internet connectivity, software glitches, and disruptions during virtual group discussions were frequently mentioned. These technical difficulties led to fragmented communication and, at times, made it difficult for students to fully engage in the collaborative problem-solving tasks. The inability to share resources quickly or maintain stable participation in discussions often caused frustration, particularly for students who relied heavily on the online component of the approach. This theme underscores the need for better technological infrastructure to support blended learning environments. The sub-theme internet connectivity problems was most commonly reported, with multiple students describing how poor internet connections disrupted their ability to engage fully in class activities.

> "Coordinating with group members was difficult, especially in virtual meetings. It was harder to maintain communication." (S3)

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"I missed out on key parts of the discussion because of poor internet connection." (S6)

Another sub-theme, technical difficulties during virtual sessions, also emerged. Students found that disruptions like session freezes or lag affected their ability to participate effectively.

"The unstable internet connection sometimes disrupted my participation in online discussions. It was hard to stay engaged when sessions would frequently freeze or disconnect." (S8)
"Technical issues made it challenging to communicate and slowed down our group's progress." (S19)
"Sometimes, the screen would freeze, and I couldn't hear the instructor, which disrupted my learning." (S10)

Finally, disruption of group discussion**s** was a challenge, as students mentioned how technical issues hindered group collaboration.

"The poor connection made it challenging to engage fully in problem-solving activities. It disrupted the flow of collaborative learning." (S25)
"Whenever there were issues with the platform, it slowed us down and made it difficult to collaborate efficiently." (S15)

Collaborative learning and group dynamics

Collaborative learning was a core component of the Blended PBL approach, and students reported that working in groups significantly improved their speaking performance. The opportunity to exchange ideas, delegate tasks, and discuss real-life problems with peers allowed students to enhance their speaking skills through peer feedback and cooperative learning. Group discussions encouraged the articulation of ideas in a structured way, improving fluency and communication skills. The positive group dynamics fostered a sense of community among students, reducing feelings of isolation in the online learning environment and encouraging active participation. This theme emphasizes the benefits of peer interaction in developing both speaking abilities and teamwork skills. One sub-theme, peer-to-peer learning, was consistently highlighted. Many students appreciated learning from their peers during group discussions.

"I could practice speaking in a more interactive way," (S2)
"The group discussions allowed me to learn from others and improved my ability to express myself." (S4)
"Collaborating with peers made me more comfortable in sharing my ideas." (S12)

The statements indicating how the collaborative environment fostered active participation. Leadership and collaboration also stood out as students recognized the importance of group roles in fostering effective learning.

"Teamwork in PBL fosters diverse perspectives and collaborative problem-solving strategies." (S7)

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"Being a group leader helped me motivate others and ensured that everyone contributed to the discussions." (S12)
"Taking leadership in discussions taught me how to guide my team more effectively." (S14)

The group cohesion and support sub-theme was also significant, with students mentioning how the group environment offered emotional support and encouragement.

"The group work helped me practice speaking more," (S4)
"The group support made me feel more comfortable speaking in front of others." (S10)
"It was a great experience working with peers who encouraged me throughout the learning process." (S17)

Real-world relevance and application

The real-world relevance of the problems tackled in Blended PBL was another theme that emerged strongly from the feedback. Students appreciated the opportunity to work on real-life issues, as it allowed them to connect their academic learning with practical, real-world applications. This not only made the learning process more meaningful but also helped students communicate more effectively by using language and vocabulary that were relevant to the topics being discussed. The application of academic knowledge to solve real-world problems made the learning experience more engaging and boosted students' confidence in their ability to tackle similar challenges in the future. This theme highlights the importance of experiential learning in enhancing both language skills and problem-solving capabilities. In the real-world relevance and application theme, students emphasized the value of solving real-life problems in improving their speaking and critical thinking skills. One sub-theme, Practical Application of Knowledge, was frequently noted, as students felt that tackling real-world issues made the learning process more meaningful.

"This approach is very interesting because I got to solve real-world problems while improving my speaking skills." (S3)
"I liked how we could solve actual problems, and this made learning feel more relevant." (S17)
"The real-world context of the problems made me think more critically." (S12)

Another sub-theme, preparation for real-life challenges, also emerged, with students recognizing that the skills they developed through Blended PBL would be valuable in future situations.

"Blended PBL encourages students to take ownership of their learning and assume leadership roles within, which helps them develop the confidence and skills necessary to lead effectively in various contexts." (S4)
"This experience prepares us for real-life scenarios where we need to solve problems as a team." (S14)

Lastly, meaningful learning experience was emphasized, as students felt the approach connected theoretical learning with practical scenarios.

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"The topics were interesting and relevant to real-world situations," (S9)
"I really enjoyed applying what I learned to real-world issues, making the whole experience more meaningful." (S22)

Self-direction and independent learning

Blended PBL required students to take greater responsibility for their own learning, which was both empowering and challenging. The need to conduct independent research, manage their time, and participate in online discussions fostered a sense of autonomy. For some students, this shift from a traditional, structured learning environment to one that emphasized self-direction was difficult to adjust to. While some students appreciated the freedom and the opportunity to manage their own learning pace, others found it overwhelming, particularly when they were accustomed to more guided forms of instruction. Nevertheless, this theme underscores the value of developing self-directed learning skills, such as time management and problem-solving, which are crucial for success in both academic and professional settings.

The theme of Self-Direction and Independent Learning highlighted how students adjusted to the increased autonomy required in the Blended PBL approach. One sub-theme, increased self-direction, was often mentioned as students were expected to take more responsibility for their learning.

"Blended PBL required more self-direction." (S5)
"This approach made me more independent in my learning." (S18)
"I had to manage my own learning more, and it helped me become more responsible."

Lack of immediate feedback emerged as a sub-theme, with some students finding it difficult to gauge their progress without instant feedback from instructors.

"Blended PBL demanded a higher level of self-discipline, which was difficult to maintain." (S6)
"It was hard to keep track of my progress because I didn't get immediate feedback like in traditional classes." (S28)

Finally, the sub-theme of Challenges of Independent Study reflected the struggles students had in managing their own learning.

"Blended learning required more independent study, which was a challenge for me." (S25)
"I found it difficult to stay on track without direct guidance from the instructor." (S32)
"Self-directed learning made it hard to stay focused without clear instructions." (S19)

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The statements above illustrate how the Blended PBL approach influenced students' speaking skills, highlighting both its benefits and challenges, with each theme and its sub-themes reflecting the students' experiences.

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Discussion

Based on the research objective to explore how Blended Problem-Based Learning (Blended PBL) is implemented in teaching EFL speaking, this study identified six key themes from classroom observations, audio-visual recordings, and digital documentation: active student engagement, facilitated learning, integration of technology, critical thinking, reflection and self-evaluation, and peer collaboration. These themes indicated that the five instructional stages of Blended PBL Preparation, Presentation, Practice, Self-Evaluation, and Expansion were successfully carried out and created a student-centered learning environment. The implementation emphasized the lecturer's role as a facilitator, the use of technology to support learning activities, and students' active involvement in real-world speaking tasks. This finding aligns with Chen et al. (2021) and Guo et al. (2024), who emphasize that PBL enhances cognitive engagement through authentic, task-based learning. Moreover, peer collaboration played a vital role in building students' speaking fluency and confidence, consistent with the findings of Hursen (2021) and Yu and Zin (2023), who assert that group work in language learning supports oral proficiency development and interpersonal communication skills.

In relation to the second objective, which focused on students' perceptions of the use of Blended PBL in learning EFL speaking, the study revealed generally positive attitudes. Students perceived that Blended PBL helped them improve speaking performance through meaningful group work, increased speaking opportunities, and reflection on their learning. They appreciated the reduced pressure in speaking tasks and the encouragement provided through peer feedback. These perceptions support the research of Syafryadin & Salniwati (2019), who found that PBL creates a supportive learning environment that enhances student motivation and participation. However, students also reported several challenges, including internet instability and difficulty adapting to self-directed learning. These challenges are consistent with the findings of Hidayah et al. (2021), who emphasized the importance of digital infrastructure in blended learning success, and Ni'mah et al. (2024), who noted that students transitioning from teacher-centered to learner-centered models often struggle with autonomy and time management. Thus, while Blended PBL is perceived as effective and beneficial, its implementation must be supported by adequate technological resources and training to develop learner independence.

Conclusion and Recommendations/Implications

The findings of this study indicate that the implementation of Blended Problem-Based Learning (Blended PBL) in teaching English speaking skills was effectively carried out through five instructional stages: Preparation, Presentation, Practice, Self-Evaluation, and Expansion. Data from classroom observations, audio-visual recordings, and digital documentation revealed that this approach encouraged active student engagement, peer collaboration, structured use of technology, as well as critical thinking and self-reflection during speaking tasks. Blended PBL created a supportive learning environment where students felt more confident participating in speaking activities without fear of formal evaluation. The approach successfully shifted the learning focus from teacher-centered to student-centered instruction and supported the development of speaking skills through meaningful, real-world communication tasks.

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In relation to students' perceptions, the majority of participants responded positively to the Blended PBL approach. They felt more motivated, appreciated the opportunity to use English in authentic situations, and demonstrated greater awareness of their own learning progress through reflective practices. However, the study also identified several challenges, including technical issues such as unstable internet connections and poor audio-visual quality during online sessions. Additionally, some students struggled with the transition to self-directed learning, particularly those who were more accustomed to traditional instructional methods. Therefore, the successful implementation of Blended PBL requires adequate technological infrastructure, support for developing learner autonomy, and continuous instructor guidance to ensure that students can fully benefit from the learning process.

Disclosure statement

No potential conflict of interest was reported by the authors.

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