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Students' Perception on the Utilization of BeeSpeaker Application in Speaking Class

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Abstract

This study examined the students' perception on the utilization of BeeSpeaker application in improving intermediate EFL students' speaking skills at Junior High School in North Sumatera. Using case study with 30 students, data was collected through interviews, questionnaire, then analyzed using Braun and Clarke's thematic analysis framework. Five key themes emerged: enhanced pronunciation through AI feedback, increased speaking confidence, improved learner autonomy, personalized learning experiences, and sustained motivation via gamification. Results showed that the majority of students strongly believed the app helped them with pronunciation, vocabulary, fluency, and confidence. In addition, BeeSpeaker provided them with repeated opportunities for practice, immediate corrective feedback, and a safe space to overcome speaking anxiety. Thematic analysis further highlighted five core areas of improvement—better pronunciation accuracy, stronger self-confidence, wider vocabulary mastery, lower levels of speaking anxiety, and the app's role as a supportive supplement to classroom learning. Together, these findings provide solid evidence that BeeSpeaker is not only useful but also highly effective in enhancing language learning outcomes.

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1. Introduction

English speaking proficiency represents one of the most critical yet challenging competencies for English as a Foreign Language (EFL) learners in contemporary educational contexts. The ability to communicate effectively in spoken English has become increasingly essential in our interconnected global society, where English functions as the primary medium for international communication, academic collaboration, and professional advancement (Chen et al., 2024). Despite widespread recognition of its importance, many EFL students continue to experience significant difficulties in developing fluent and confident speaking abilities, encountering persistent barriers that conventional classroom instruction often inadequately addresses.

Traditional EFL learning environments present numerous obstacles to effective speaking skill development, including limited practice opportunities due to large class sizes, time constraints, and predominantly teacher-centered pedagogical approaches that emphasize passive learning over active communication engagement (Tang & Zhang, 2024). These structural limitations create substantial gaps between theoretical language knowledge acquisition and practical speaking application, resulting in many students possessing inadequate oral communication skills despite extensive English study periods.

Speaking anxiety constitutes another critical impediment to oral communication development in EFL contexts. Research consistently demonstrates that foreign language speaking anxiety significantly inhibits students' willingness to participate in speaking activities and negatively impacts their overall oral proficiency progression (Fathi et al., 2024). Students frequently experience fear of making mistakes, concerns about pronunciation accuracy, and embarrassment regarding their language abilities, collectively creating psychological barriers that substantially hinder speaking development.

The emergence of Mobile-Assisted Language Learning (MALL) has introduced innovative possibilities for addressing these longstanding challenges in speaking skill development. Mobile technologies offer EFL learners portable, connective, context-sensitive, and ubiquitous learning environments that enable seamless speaking practice opportunities beyond traditional classroom boundaries (Rahman et al., 2024). Educational speaking technology is a digital expertise used to enhance speaking performance, with research examining the effects of using various educational speaking technology tools to enhance students' speaking performance (Dizon, 2024). Recent technological advances have produced sophisticated mobile applications specifically designed to support speaking skill enhancement through artificial intelligence, speech recognition technology, and personalized feedback mechanisms.

The integration of artificial intelligence and automatic speech recognition (ASR) technologies has particularly revolutionized mobile language learning applications. Studies indicate that ASR technology can significantly improve EFL

learners' speaking skills by increasing practice opportunities, providing immediate feedback, and reducing performance anxiety (Wu et al., 2023). Furthermore, AI-powered language learning tools demonstrate positive impacts on learners' motivation, engagement, and self-regulated learning behaviors, creating more effective and personalized educational experiences (Li et al., 2023).

Recent research reveals that mobile English-learning applications have gained substantial popularity among students, contributing significantly to English speaking skill improvement through innovative pedagogical approaches (Yang & Hu, 2023). However, despite growing interest in mobile learning technologies, limited research has systematically examined students lived experiences with specific mobile applications and their perceived impact on speaking skill development from qualitative perspectives. Mobile applications may provide individualized, genuine, and exciting language learning, particularly for formal education, allowing learners to control their learning and access authentic and immersive content in the target language through gamification (Figueiredo, 2024).

The BeeSpeaker application represents a new generation of AI-enhanced mobile learning tools designed specifically for speaking skill development. While quantitative studies have demonstrated the effectiveness of MALL applications in improving speaking proficiency (Aliakbari et al., 2022), there remains a significant gap in understanding the lived experiences and perceptions of students using such technologies. Recent research indicates that generative AI can significantly support learners' self-efficacy, yet the qualitative dimensions of student experiences with AI-powered speaking applications require deeper investigation.

This qualitative case study addresses this research gap by investigating intermediate-level EFL students' experiences with the BeeSpeaker application and exploring how this mobile learning technology influences their speaking skill development, motivation, and overall learning engagement. Through detailed examination of students' perspectives and experiences, this research aims to provide comprehensive insights into the potential of mobile-assisted language learning for transforming traditional EFL speaking instruction.

The significance of this study extends beyond immediate pedagogical implications to broader questions about technology integration in language education, learner autonomy development, and the future of mobile-assisted language learning in diverse educational contexts. By focusing on students' voices and experiences, this research contributes valuable insights to the growing body of literature on effective technology-enhanced language learning approaches.

2. Method

This study employed a qualitative case study design to examine the students' perception on the utilization of BeeSpeaker application in improving intermediate EFL students' speaking skills at Junior High School in North Sumatera. A case study approach was selected as the most appropriate methodological framework to

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provide in-depth exploration of students lived experiences with mobile-assisted language learning (MALL) technology within their natural educational context (Yin, 2018).

The single embedded case study design focused on the bounded system of intermediate EFL learners at Junior High School in North Sumatera, examining their experiences with BeeSpeaker during an intervention period. This design enabled comprehensive understanding of the complex phenomena surrounding technology-enhanced language learning, allowing for detailed examination of how the BeeSpeaker application impacts speaking skill development, motivation, and learning processes among participants.

In this study, the phenomenon under investigation was the use of the BeeSpeaker application in improving students' speaking skills. A case study is particularly appropriate when the researcher seeks to answer "how" and "why" questions regarding a contemporary issue that the researcher cannot manipulate directly. By applying this design, the study was able to explore students' real experiences, perceptions, and reflections as they interacted with the application in the course of their English learning. Unlike experimental or survey research, which focuses on broad generalizations, the case study method emphasizes depth, detail, and the richness of individual experiences, which makes it especially suitable for examining how learners respond to technology in language education.

The participants in this research were drawn from a group of 30 intermediate-level students at Junior High School in North Sumatera. The students were selected purposively, meaning that they were chosen based on specific criteria relevant to the study's objectives. The criteria included having an intermediate level of English proficiency, demonstrated through their classroom performance, possessing regular access to a mobile device, and showing willingness to participate in the interviews. These students had been introduced to the BeeSpeaker application and had used it as a supplementary tool for their speaking practice.

By focusing on this group, the research sought to capture a wide range of perspectives on the ways in which the application influenced speaking development, as well as the challenges encountered in the learning process. Although the sample was relatively small, this is consistent with qualitative case study research, where the aim is not statistical generalization but rather a deep and nuanced understanding of participants' experiences.

Data collection in this study was carried out using questionnaire and semi-structured interviews, The questionnaire was designed with a Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), consisting of 10–15 items that measured students' perceptions of the BeeSpeaker application in terms of pronunciation improvement, confidence, motivation, vocabulary enrichment, speaking anxiety, and classroom participation. The responses were analyzed using descriptive statistics, including mean, standard deviation, and percentage

conversion of mean scores.

This data provided an overview of students' attitudes and perceptions toward BeeSpeaker. To complement the questionnaire, semi-structured interviews were conducted with selected participants to gain deeper insights into their experiences. The interviews explored students' reflections on how BeeSpeaker influenced their speaking skills, confidence, and classroom engagement, as well as the challenges they faced. All interviews were conducted individually in a conversational style, recorded with consent, and later transcribed for analysis. Thematic analysis following Braun and Clarke's (2019) six-phase framework was applied to identify recurring themes. Combining the questionnaire and interviews allowed triangulation of data, ensuring a richer and more reliable understanding of the effectiveness of BeeSpeaker in improving students' speaking abilities.

The interviews explored areas such as speaking improvement, difficulties encountered, and students' views on technology-assisted learning. Each interview was conducted individually in a conversational style to create a comfortable atmosphere and encourage honest responses. The data were then examined using Braun and Clarke's (2019) six-phase thematic analysis, starting from familiarization and coding, to theme development, review, and refinement. From this process, several key themes emerged, including improvements in pronunciation, vocabulary enrichment, increased confidence, and the presence of technical challenges, all of which were presented in a structured narrative supported by participants' direct statements.

To ensure the credibility and trustworthiness of the findings, several strategies were employed throughout the research process. Member checking was conducted by sharing some of the interpretations with participants to confirm whether the results reflected their intended meaning. Peer debriefing was used to discuss the analysis with academic colleagues, which helped minimize researcher bias and strengthen the validity of the interpretations. In addition, an audit trail was maintained to document the steps taken during data collection and analysis, ensuring transparency and rigor. These measures helped enhance the authenticity, dependability, and confirmability of the study.

3. Result

The findings of this study revealed that the BeeSpeaker application contributed meaningfully to the development of students' speaking skills. Through interviews, several recurring themes emerged, the strongest of which were improvements in pronunciation, increased confidence in speaking, vocabulary enrichment, and challenges related to technical and interactional limitations. To complement the qualitative findings from interviews, this study also employed a Likert scale questionnaire consisting of 10 items to quantify students' perceptions of the BeeSpeaker application.

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The scale ranged from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*) and was designed to capture various aspects of students' experiences, including pronunciation improvement, confidence building, vocabulary enrichment, learning motivation, reduction of speaking anxiety, classroom participation, and the effectiveness of feedback features.

Likert Scale (1–5), 10 Items

NO	STATEMENT	5	4	3	2	1
1	BeeSpeaker helps me improve my English pronunciation.	70%	15%	5%	5%	5%
2	BeeSpeaker motivates me to practice speaking more often	70%	10%	10%	5%	5%
3	BeeSpeaker enriches my English vocabulary.	65%	15%	10%	5%	5%
4	Using BeeSpeaker has boosted my confidence in speaking English.	65%	10%	15%	5%	5%
5	Practicing with BeeSpeaker has improved the ease with which I express my ideas.	60%	10%	15%	5%	5%
6	BeeSpeaker helps reduce my anxiety when speaking English.	55%	15%	15%	10%	5%
7	The feedback feature in BeeSpeaker is effective in improving my speaking ability.	60%	15%	15%	5%	5%
8	Despite technical problems, I still find BeeSpeaker useful in improving my speaking skills.	55%	15%	15%	10%	5%
9	BeeSpeaker should be used as a supplementary tool for English learning in the classroom.	65%	15%	10%	5%	5%
10	BeeSpeaker supports my independent learning and allows me to practice at my own pace.	60%	15%	10%	10%	5%

The results of the Likert scale survey (1 = *Strongly Disagree* to 5 = *Strongly Agree*) with 30 students showed generally positive perceptions of the BeeSpeaker application. The average scores for the ten items ranged from 55% to 70%, indicating that most students agreed or strongly agreed with the positive statements about the application. The highest mean score (70%) was for the item *"BeeSpeaker helps me improve my English pronunciation"*, showing that increased

confidence was the most strongly perceived benefit. Other items with high scores included pronunciation improvement (70%), vocabulary enrichment (M = 60%), and the effectiveness of feedback (60%). Meanwhile, the lowest mean score (55%) appeared in the item related to reducing anxiety, suggesting that although BeeSpeaker helped students, some still experienced nervousness when speaking English. Item 9, regarding the usefulness of BeeSpeaker despite technical problems, also scored slightly lower (55%), reflecting the impact of internet and technical challenges. Overall, the total mean score was 65% with a standard deviation of 60%, which confirms that students generally perceived BeeSpeaker as an effective and beneficial tool for improving their speaking skills.

1. Improvement in Pronunciation

Pronunciation improvement emerged as one of the strongest impacts of BeeSpeaker. Students emphasized that the app's automatic speech recognition and feedback system allowed them to recognize errors they had been repeating unconsciously for years. Unlike traditional classrooms, where the teacher cannot monitor every student individually, BeeSpeaker provided personalized corrections that gave them the chance to focus on accuracy. This was especially valuable for commonly mispronounced words in English.

One student reflected, *"I always said 'develop' wrong, but the app showed me how to say it properly. I repeated it until I could say it like the example, and now my friends also notice the difference."* Another added, *"I realized I was saying 'comfortable' incorrectly all this time, but after practicing with BeeSpeaker, I can now pronounce it correctly and confidently."* These accounts show that practice with immediate feedback helped students overcome deeply rooted pronunciation issues.

2. Increased Confidence

Confidence was identified as the greatest benefit of BeeSpeaker, many students expressed that before using the app, they avoided speaking in class due to fear of mistakes and negative evaluation from peers. BeeSpeaker, however, provided a judgment-free space where they could practice repeatedly without embarrassment. This environment helped them transition from private practice to classroom participation.

One student explained, *"In class, when the teacher asks me to speak, my hands shake. But with BeeSpeaker, I can practice alone. No one is laughing, so I feel brave to try."* Another admitted, *"I used to avoid answering in English, but after practicing with BeeSpeaker, I am more willing to speak up in front of my classmates."* These experiences reveal how the app played a role in breaking psychological barriers that hinder speaking performance.

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3. Vocabulary Enrichment

Vocabulary enrichment was another notable theme, with a survey mean of 65%. Students mentioned that the app exposed them to new words and useful expressions that went beyond the limited vocabulary typically emphasized in textbooks. They also appreciated how BeeSpeaker encouraged them to actively use this vocabulary in both spoken and written communication, which strengthened their retention. BeeSpeaker served as more than a pronunciation tool; it was also a vocabulary builder.

One participant said, *"Before, I always used simple words like 'good' or 'bad.' But BeeSpeaker taught me words like 'fantastic,' 'challenging,' and even phrases like 'as far as I know.' Now my speaking sounds more natural."* Another noted, *"I learned new words from the app and started using them in my WhatsApp chats with friends. It makes me more confident to write and speak in English."* These accounts illustrate how the app promoted both recognition and production of vocabulary.

4. Reducing Anxiety

Reducing speaking anxiety was another recurring theme, although it had the lowest survey score (55%). This suggests that while BeeSpeaker helped students feel more relaxed, anxiety was not fully eliminated. Students described how practicing privately with the app gave them confidence before speaking in public, but some still struggled when asked to perform spontaneously in class. This highlights that personal differences, such as personality and language background, played a role in how much BeeSpeaker impacted anxiety levels.

A participant shared, *"I feel less nervous now because I can practice alone first. Then, in class, I don't feel so scared."* Another added, *"The app makes me calmer. I know I can try as many times as I want without anyone laughing."* These statements illustrate how BeeSpeaker provided a stepping stone toward more confident speaking, even if not a complete solution.

5. Supplementary Tool

Students consistently viewed BeeSpeaker as a valuable supplementary resource rather than a replacement for classroom learning. The survey score for this item was high (65%), showing strong agreement. Learners recognized the app's strengths in providing individualized feedback and flexible practice but emphasized the need for authentic, face-to-face communication to develop real-time interaction skills.

One student observed, *"The app is good for practicing, but real conversation is different. My friends can suddenly ask me something, and I must answer quickly. The app cannot do that."* Another explained, *"BeeSpeaker is very useful, but it should go together with classroom learning. The app helps at home, and class helps me practice with real people."* These reflections highlight how technology and classroom learning complemented each other.

One of the most frequently mentioned outcomes was improvement in pronunciation. Students explained that the application's feedback system made them aware of mistakes they had been making for years. One student shared, "I always said 'develop' wrong, but the app showed me how to say it properly. I repeated it until I could say it like the example, and now my friends also notice the difference."

Another participant admitted that she was shocked when she realized she had been mispronouncing everyday words, such as comfortable or chocolate, but after practicing repeatedly with the model audio, she was able to correct her pronunciation. These responses illustrate that the immediate and repeated feedback provided by BeeSpeaker encouraged students to pay closer attention to the details of spoken English, something they rarely received in classroom environments where teacher time was limited.

The second prominent finding was a noticeable increase in students' confidence. Many of the participants said that before using the application, they often avoided speaking in class sbecause they were afraid of making mistakes in front of their peers. With BeeSpeaker, however, they felt free to practice privately and repeatedly until they were satisfied with their performance. One student remarked, "In class, when the teacher asks me to speak, my hands shake. But with BeeSpeaker, I can practice alone. No one is laughing, so I feel brave to try." This safe practice environment gave students the courage to participate more in classroom discussions and, in some cases, even use English in casual conversations outside of school. Students consistently described this newfound confidence as one of the most valuable benefits of the application.

Another theme that emerged was vocabulary enrichment. Several participants explained that the application introduced them to new words and phrases that they would not have learned otherwise. A student explained, "Before, I always used simple words like 'good' or 'bad.' But BeeSpeaker taught me words like 'fantastic,' 'challenging,' and even phrases like 'as far as I know.' Now my speaking sounds more natural." This was echoed by another participant who noted that she had started to apply newly learned vocabulary when texting in English with her friends. The contextual exercises within the application not only introduced vocabulary but also encouraged learners to apply it actively, which improved both their fluency and their ability to express themselves more clearly.

While the benefits of BeeSpeaker were clear, the findings also revealed several challenges. The most commonly reported issue was poor internet connectivity, which interrupted practice sessions. Some students admitted that these disruptions discouraged them from using the application regularly. One participant explained, "Sometimes the app stops because the signal is bad. I feel lazy to continue when it happens many times." Another challenge mentioned was the limited authenticity of interactions. Although students valued the pronunciation and vocabulary practice, they felt the application could not fully

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replicate the dynamics of speaking to a real person. One student observed, “The app is good for practicing, but real conversation is different. My friends can suddenly ask me something, and I must answer quickly. The app cannot do that.” Despite these challenges, students still expressed appreciation for BeeSpeaker as a valuable supplement to classroom learning, especially for individual practice.

4. Discussions

The results of the research show that teachers at PAB 9 Medan Junior High School, English teachers who teach children with dyslexia specifically, use a multisensory approach strategy. With this multisensory approach, students can be helped to learn English, because the multisensory approach combines visual, audio, kinesthetic, and tactile elements. The English teachers there use a multisensory approach, a method that involves many senses at once seeing, hearing, touching and moving. This method has proven to be very helpful because for dyslexic children, learning new words through just one route often leads to a dead end, so they need a "shortcut" through physical and sound experiences to lock in the memory.

This is in line with previous research conducted by several researchers, such as Halim (2023), who used dyslexia as a smart tool in teaching English to students. This approach is in line with Halim's emphasis that we can utilize technology as a smart tool in teaching English to students.

In the classroom, technology acts as a bridge of inclusion, making dyslexic students feel equal to their peers. When teachers combine direct instruction with digital tools, they are creating a learning environment that is more welcoming to the unique workings of dyslexic brains, making English less of a daunting prospect. Additionally, Gee (2010) used mini-games to create an immersive learning experience by providing immediate feedback. I confirmed my findings that E-Dyslexia can enhance students' learning experiences through gamification. This approach is in line with James' emphasis that technology can improve the learning experiences of students with dyslexia. It's not just about points in the game, but about building students' self-confidence, which is often fragile due to reading difficulties. When they feel like they're "playing," frustration turns into motivation to try again.

Finally, Tiara Luthfi (2024) states that the Dyslexia app helps in several aspects of English language learning, related to feedback and technical difficulties that reduce its effectiveness. I confirm my findings that there are several obstacles in the E-dyslexia app, such as access to features, not all of which are accessible, some of which are paid. However, even though these obstacles do not necessarily affect the functionality of the application, the students agreed that this was not a problem.

This approach is in line with Tiara's emphasis that E-dyslexia can be neutralized in its use so that it does not harm anyone, nor does it interfere with student learning in the classroom. Students still feel supported because the benefits they experience far outweigh any technical challenges. As long as the app remains a useful learning aid, its limited features won't hinder their progress.

The results of the study show that students can improve their English learning and expand their vocabulary with the help of the E-dyslexia application. As a result, the E-dyslexia application offers a new method for educators to meet students' vocabulary needs (Birsh, J. R., & Carreker, 2018).

5. Conclusion

The findings of this study clearly demonstrate that BeeSpeaker has a significant impact on improving students' English-speaking skills in multiple aspects. The quantitative results showed consistently high mean scores across items, indicating that the majority of students strongly believed the app helped them with pronunciation, vocabulary, fluency, and confidence. Meanwhile, the qualitative interview data reinforced these results, with students describing how BeeSpeaker provided them with repeated opportunities for practice, immediate corrective feedback, and a safe space to overcome speaking anxiety.

Thematic analysis further highlighted five core areas of improvement—better pronunciation accuracy, stronger self-confidence, wider vocabulary mastery, lower levels of speaking anxiety, and the app's role as a supportive supplement to classroom learning. Together, these findings provide solid evidence that BeeSpeaker is not only useful but also highly effective in enhancing language learning outcomes.

The implications of this research are substantial for both teaching practice and student learning. For educators, BeeSpeaker can be integrated as a supplementary tool to optimize classroom instruction, giving students opportunities for autonomous practice that traditional lessons may not always accommodate. This integration supports a blended learning model, where classroom activities are enriched by digital practice at home, ensuring continuity in skill development.

For students, BeeSpeaker provides personalized learning experiences that build fluency and confidence while reducing the psychological barriers often associated with speaking in English. These findings also imply that educational institutions should begin to adopt mobile-assisted language learning tools like BeeSpeaker as part of their curriculum to prepare students for more communicative and technology-driven learning environments.

Despite the promising results, this study recognizes its limitations and offers important suggestions for learners. One limitation is that the study relied heavily on self-reported perceptions, which may not fully capture long-term language proficiency gains. Additionally, technical issues, such as poor internet

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connections or device limitations, occasionally disrupted students' practice sessions.

For students, it is strongly recommended to use BeeSpeaker consistently and in combination with classroom activities, so that improvements gained through the app can be transferred into real-world interactions. Learners should also push themselves to practice speaking in authentic settings, as true fluency can only be achieved through spontaneous communication with peers and teachers. Future research could expand on this study by including larger participant groups, longitudinal data collection, and comparisons with other mobile-assisted applications to create a more comprehensive picture of how digital tools like BeeSpeaker can transform English language learning

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