Students' perceptions on memorylingo to improve their listening skill

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Abstract

This study investigates students' perceptions of using the MemoryLingo application to enhance their English listening skills. Employing a qualitative case study approach, the research involved 34 junior high school students who completed questionnaires, with two purposively selected participants interviewed to gain deeper insights. Data were collected through Likert-scale questionnaires and semi-structured interviews, focusing on comprehension, engagement, confidence, and independent learning. The results indicate that the majority of students (over 85%) agreed or strongly agreed that MemoryLingo improved their listening comprehension, accuracy, and ability to identify key spoken phrases. Participants reported that features such as interactive exercises, audio-visual content, and immediate feedback were highly effective in facilitating learning. Thematic analysis revealed four central themes: improved comprehension, increased confidence, promotion of independent practice, and the benefits of interactive features. Although some students noted difficulties in processing fast-paced audio, overall perceptions were positive. The findings suggest that MemoryLingo can serve as a valuable supplementary tool in listening instruction, supporting both classroom learning and autonomous study. This study highlights the practical relevance of integrating digital tools into English language education and recommends further research with larger and more diverse samples to explore long-term impacts and comparative effectiveness with other learning applications. Future research should examine its long-term effects and compare its impact with other digital tools.

keywords: *Listening Comprehension, Digital Learning Tools, Educational Technology, Student Perceptions*

Introduction

Listening is a fundamental skill in English language learning, playing a crucial role in learners' ability to comprehend meaning, engage in communication, and achieve overall language proficiency (Akbar, Sofian, & Wardah, 2020). It enables students to understand spoken English, acquire vocabulary, and develop accurate pronunciation. However, in Indonesia, listening remains one of the most challenging skills for students to master due to limited exposure to authentic English input. Many learners struggle to process spoken language in real time, particularly when faced with fast paced conversations, unfamiliar accents, and minimal opportunities for interactive listening practice (Mandarani, 2016). These issues often result in poor comprehension, reduced confidence, and difficulties responding in English conversations.

In today's digital era, various language learning applications have been utilized to enhance English language skills, including listening comprehension. Several studies have investigated the effectiveness of apps such as Elsa Speak, which has proven useful in helping students improve pronunciation and listening simultaneously through AI technology (Anes, Wachyudi, & Pahlevi, 2023). Similarly, Andaired has shown positive impacts in developing students' listening abilities in Arabic language learning (Nisa, 2021). Additionally, computer-based learning media have been developed to support high school students in practicing listening skills (Choirunnisa & Haryadi, 2017), and music-based learning has also produced encouraging results in improving listening competence among elementary school students (Fadlilah et al., 2019).

Another widely used digital platform for listening practice is YouTube. Zulfikar et al. (2024) found that many students use YouTube as a resource for improving listening comprehension, accessing authentic speech, and preparing for TOEFL exams. The findings suggest that digital learning tools should provide a structured yet flexible approach to listening instruction. Traditional teaching methods in Indonesia have not adequately addressed these listening challenges. Classroom instruction tends to rely heavily on scripted dialogues, teacher dictation, and textbook-based activities that do not expose students to natural speech patterns or promote active listening (Mahadi et al., 2018). Furthermore, many lessons focus solely on answering comprehension questions rather than fostering interactive engagement or authentic language use. These approaches limit students' ability to adapt to diverse speech styles and build real world listening competence.

To overcome these limitations, digital tools have emerged as alternative learning resources. One such tool is MemoryLingo, an interactive language-learning application that integrates audio input, visual aids, mnemonic techniques, and gamified features to support listening comprehension. The app is designed for beginner and intermediate learners, offering features such as adjustable difficulty levels, replayable audio, and visual reinforcement to enhance memory and

understanding. MemoryLingo was developed by the Appcentric Team, led by Michael Nguyen, a young developer known for combining memory science and technology in language learning innovation. Since its launch on the Google Play Store in December 2023, MemoryLingo has gained over one million downloads with a user rating of approximately 4.6 out of 5 stars reflecting its popularity and positive reception among learners.

While various studies have examined the impact of digital tools like Duolingo, Memrise, and Quizlet on vocabulary and speaking skills (Rakhmanina & Kusumaningrum, 2017; Lin & Lin, 2019), little attention has been given to listening comprehension, and no research to date has specifically explored students' perceptions of MemoryLingo in this context. Considering the growing integration of educational technology into language instruction, understanding students' experiences with applications like MemoryLingo is essential for assessing their relevance, effectiveness, and potential role in supporting modern curriculum goals.

Therefore, the aims of this study are to evaluate the effectiveness of MemoryLingo in improving students' listening comprehension, assess how the app enhances students' confidence in listening, and analyze which interactive features most significantly support independent learning. By addressing these objectives, the study aims to contribute empirical insights into the role of digital learning applications in supporting English language education, particularly in developing listening skills in the Indonesian context. To guide the investigation, the following research questions are addressed:

1. How do students perceive the effectiveness of MemoryLingo in improving their English listening comprehension and confidence?
2. Which features of MemoryLingo do students find most helpful in supporting independent and interactive listening practice.

Method

This study employed a qualitative approach using a case study method to explore students' perceptions of using the MemoryLingo application in enhancing listening skills. The case study design allowed for an in-depth investigation of individual experiences in a natural educational setting. The participants consisted of two junior high school students, selected purposively from a total of 34 students at a school in Medan. The selected students had adequate experience using the application and were willing to participate in the study.

Data were gathered through Likert-scale questionnaires and semi-structured interviews. The questionnaire was distributed to all 34 students and covered topics such as ease of use, listening comprehension, motivation, and learning independence. In-depth interviews were conducted with two selected participants to gain deeper insights into their learning experiences. Each interview lasted approximately 5–10 minutes and was conducted in person. All sessions were audio recorded and transcribed for analysis.

The data were analyzed using thematic analysis, which involved open coding of responses, identification of key patterns, and the grouping of related ideas into major themes. This method allowed for a comprehensive understanding of student perceptions. To ensure validity, member checking was applied by sharing interpretations with participants for confirmation. Peer debriefing was also used to reduce bias. Ethical considerations included informed consent from participants and school approval prior to data collection.

Findings

Based on the questionnaire and interviews with two junior high school students regarding the use of MemoryLingo to improve their listening skills, that can improve their understanding, enhancing their listening skill, easy to use, with a user-friendly interface that allows them to navigate the app effortlessly. Furthermore, the application offers comprehensive features, such as interactive exercises, adaptive learning, and real-time feedback, which support students in developing their listening abilities effectively. The following findings were obtained:

1. Improving Students' Comprehension of Spoken English

MemoryLingo helps students better understand English as spoken by native speakers. Through exercises that involve recognizing words, phrases, and sentences in various contexts, students become accustomed to correct pronunciation and intonation. The benefit for students is that they can more easily grasp the meaning of English conversations, both in Academic settings and daily life. This was can be seen from the diagram.
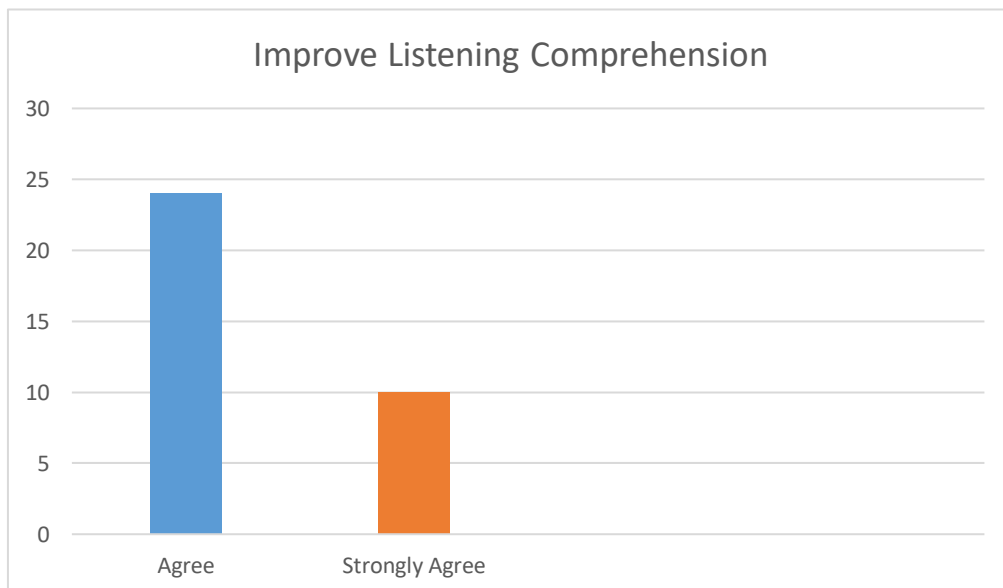

Figure1 improve listening Comprehension

The data indicate that MemoryLingo significantly contributes to students' ability to comprehend spoken English. As shown in Figure 1, 24 students agreed and 10 strongly agreed that the application improved their listening comprehension. Exercises involving the recognition of commonly used phrases, speech chunks, and contextualized vocabulary supported this development. Interview responses affirmed this trend. One participant shared:

"MemoryLingo is very helpful in understanding conversations in English. I find it easier to grasp the main idea after practicing with this app." (Participant 1)

This improvement is attributed to repeated exposure to diverse speech models, which familiarized students with native pronunciation and natural speech rhythm. However, the data also revealed areas of concern. Participant 2 expressed:

"A little easier, but I still need more practice to understand longer conversations."

This suggests that while overall comprehension improved, the challenge of processing extended and complex spoken input remains for some learners, especially when exposed to fast-paced or unfamiliar speech patterns.

2. Enhancing Students' Accuracy and Confidence in Listening

Using this app helps students enhance their accuracy in understanding spoken English words and sentences. With real-time feedback and repeated practice, students can correct mistakes and better understand language structures. The benefit for students is that they gain more confidence when listening to conversations or English materials, as they become familiar with common patterns and sounds. This was can be seen from the diagram.
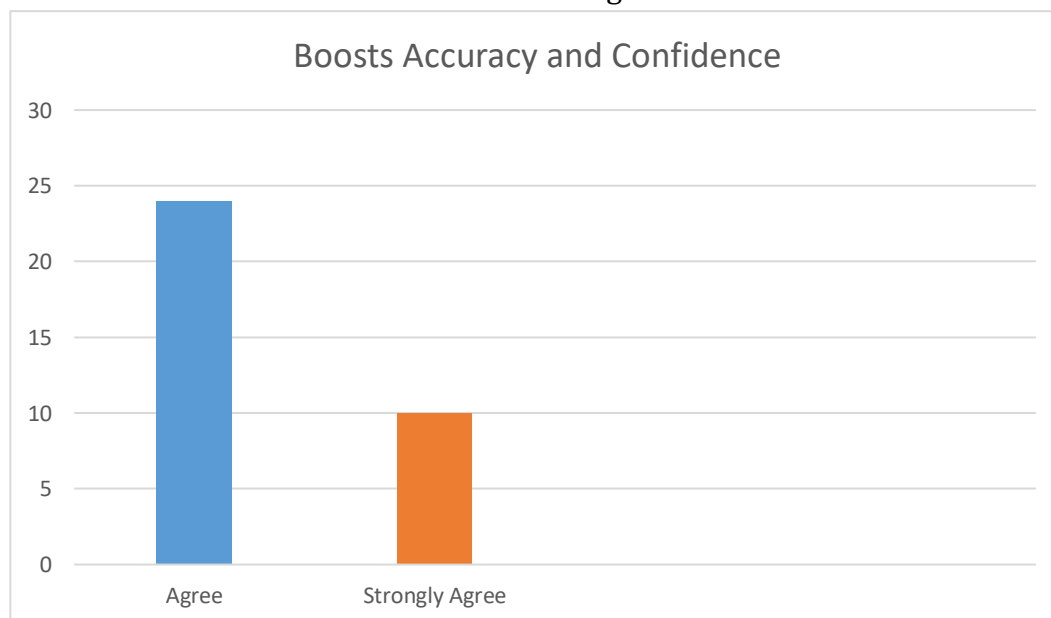

Figure 2 boost accuracy and confidence

As illustrated in Figure 2, a majority of students reported increased confidence and accuracy in identifying words and phrases. Specifically, 29 students agreed and 4 strongly agreed that MemoryLingo boosted their confidence in listening tasks. Participant 1 confirmed this in the interview:

"Definitely, I feel more confident when listening to English in different situations.

The application's design featuring repeatable audio clips, structured feedback, and interactive drills allowed students to self-correct and internalize sound patterns more effectively. Nevertheless, individual differences emerged. Participant 2 acknowledged:

"I still lack confidence, but at least I don't panic as much when listening to English conversations."

This implies that while MemoryLingo builds foundational confidence, it may not be sufficient for every learner, especially those with more severe anxiety or lower initial proficiency. Furthermore, challenges related to phonetic discrimination particularly distinguishing similar-sounding words—were addressed in the app. Participant 2 commented:

"Some words are still hard to distinguish, but I feel better at recognizing differences in pronunciation after using MemoryLingo."

This suggests that while progress was evident, auditory discrimination continues to be a growth area for some students.

3. Facilitating Students' Independent Listening Practice

The app provides students with opportunities to practice listening independently without relying on a teacher or formal classroom setting. They can access materials anytime and anywhere based on their needs. The benefit for students is that they can learn at their own pace, develop self-discipline in learning, and get more practice opportunities, leading to optimal progress. This was can be seen from the diagram.
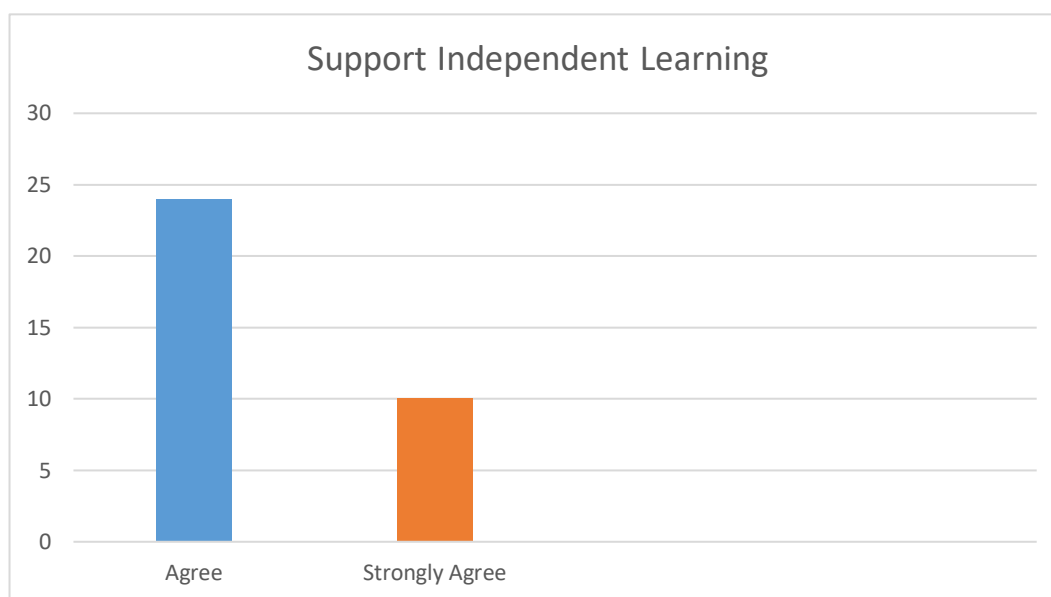
Figure 3 support independent learning

The application's accessibility and flexibility emerged as another major strength. Figure 3 reveals that 22 students agreed and 8 strongly agreed that MemoryLingo supported self-directed listening practice. Students were able to engage with the material at their own pace and revisit challenging content multiple times. Participant 1 stated:

"It is more effective because it includes interactive exercises that help me stay focused."

Multimedia features such as audio-visual associations and clickable exercises were particularly appreciated. For instance:

"Very helpful, especially in connecting words with images to clarify meanings." (Participant 1).

However, despite these benefits, some students still indicated a need for occasional guidance:

"Sometimes I still don't understand the corrections, and I wish there was more explanation." (Participant 2)

This feedback points to the importance of scaffolding in independent learning, suggesting that even well-designed tools require some human support or instructional alignment.

4. Optimizing Students' Listening Development through Interactive Features

Interactive features in the app, such as listening quizzes, voice recognition, and adaptive exercises, are designed to make learning more engaging and effective. These interactions keep students motivated and actively involved in the learning process. The benefit for students is that they do not just learn passively but also engage actively, which enhances their listening comprehension and skills more quickly and enjoyably. This was can be seen from the diagram.
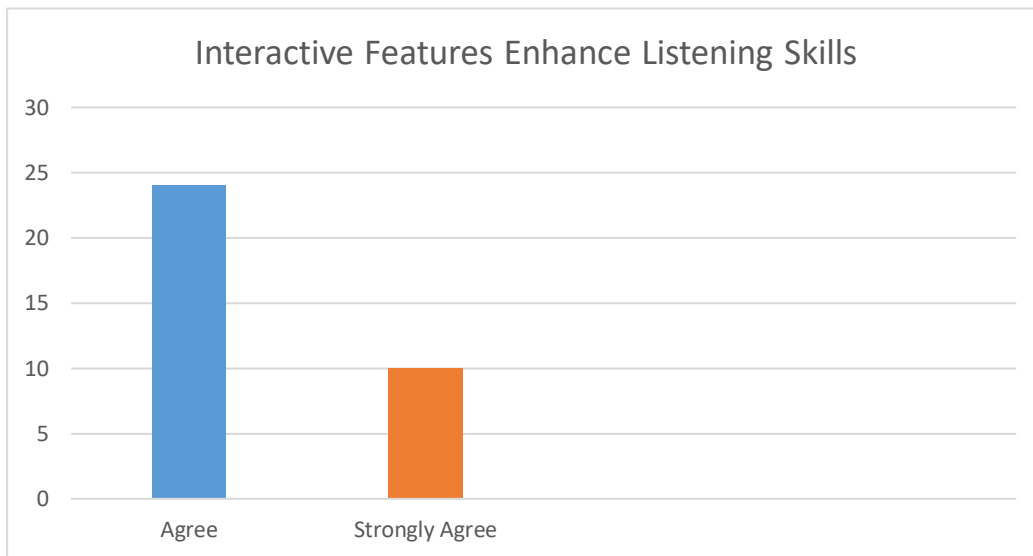
Figure 4 interactive features enhance listening skill

Apart from its effectiveness in improving listening skills, user-friendly features are also one of the aspects that students appreciate in figure 4 highlight 26 students agree while 4 strongly agree that appreciated MemoryLingo's user-friendly features. This research is reinforced by the results of interviews. Participant 1 noted:

"Yes, the audio is clear and easy to understand, and the exercises are very helpful."

Ease of use also contributed to high engagement, particularly among beginner users. According to Participant 2:

"The app interface is simple and easy to use for independent learning."

Despite this praise, challenges remained for some learners:

"The fast-speaking parts are still difficult for me, even with practice." (Participant 2)

This suggests that while interactive features boost motivation, they should be accompanied by adaptive pacing mechanisms to ensure inclusivity across proficiency levels.

The integration of qualitattive data provides a nuanced understanding of how MemoryLingo supports students' listening development. The main findings can be summarized as follows. Enhanced comprehension: Most students reported improvement in understanding spoken English due to structured and contextualized practice. Increased confidence and accuracy: Students gained confidence in listening, but individual differences persisted. Support for independent learning: The flexibility of the app allowed learners to practice autonomously, though some still needed additional guidance. Interactive engagement: Gamified and multimedia features were positively received and increased motivation, yet advanced features posed difficulties for a few users.

Notably, contradictions and limitations emerged. Although participants generally praised the app, some expressed concerns regarding fast-paced speech and limited instructional scaffolding. These insights highlight areas for future app development and point to the need for blended approaches combining digital tools with teacher support.

Discussion

The findings of this study align with recent research highlighting the effectiveness of digital tools in enhancing students' listening comprehension. One of the key benefits of using MemoryLingo is its ability to help students recognize speech patterns and key details, even in naturally paced speech. The interactive audiovisual features allowed students to connect sounds with meaning, which is consistent with multimedia-based learning theories that emphasize contextualized input (Mahadi et al., 2018). The use of bottom-up strategies also helped learners decode spoken language more effectively (Akbar, Sofian, & Wardah, 2020).

These results are consistent with studies on the MyEVO application and Duolingo, which have shown improvements in learners' comprehension through repetition and visual support (Ismayatim et al., 2019; Niah & Pahmi, 2019). Exposure to various accents and real-life speech helped students build more flexible listening skills, addressing one of the limitations of traditional listening instruction (Roshalina, 2023).

Moreover, MemoryLingo helped increase students' confidence and accuracy in listening. Real-time feedback, repetition, and structured activities allowed students to reflect on their progress and improve gradually. This finding supports earlier studies on how digital platforms reduce anxiety and increase self-efficacy in language learning (Prasetyo, Dianingsih, & Farhana, 2023; Maharani, 2023). Tools like Viet-Skype and Joox have also been found to enhance students' listening confidence through authentic exposure and multimedia input (Tran et al., 2024; Anggraini & Fauzi, 2019).

Another major advantage identified was the app's support for independent learning. Students appreciated the flexibility of practicing anytime and at their own pace. These findings reinforce the role of self-paced and mobile learning tools in building listening habits and promoting learner autonomy (Niah & Pahmi, 2019; Prasetyo et al., 2023). Additionally, the interactive features of MemoryLingo such as gamification, progress tracking, and adaptive tasks played a critical role in keeping learners engaged. Prior research supports the idea that interactive and gamified applications increase motivation and foster deeper learning (Kartika, Dewi, & Mahendra, 2023; Kholid, Kurniawati, & Nadila, 2024). These findings demonstrate that students not only enjoyed the learning process but also became more involved in developing their listening skills.

These findings also align with Krashen's Input Hypothesis, which emphasizes the importance of comprehensible input in second language acquisition. MemoryLingo's adaptive features and repeatable audio input support learners in

accessing input slightly above their current level, which facilitates gradual improvement. Moreover, the use of multimedia and image-based memory strategies is in line with the Multimodal Learning Theory, which suggests that combining visual and auditory channels enhances language retention (Handayani & Izzah, 2020).

While overall student feedback was positive, it is important to note that some participants still faced difficulty with fast-paced or unfamiliar speech. This indicates that while digital tools can support language acquisition, they may not fully replace the need for teacher-guided strategy instruction, especially for lower-proficiency learners. More structured scaffolding within the app might help address these gaps. This study has several limitations. It involved only two interview participants from a single school, which limits the generalizability of the findings. In addition, the relatively short duration of app usage may not fully reflect long-term learning outcomes. Future research should involve a larger and more diverse sample and explore longitudinal impacts and comparative effectiveness with other digital learning platforms.

Conclusion

This study explored students' perceptions of using the MemoryLingo application to enhance their English listening skills. The findings indicate that MemoryLingo effectively improved students' listening comprehension by providing structured, interactive exercises that helped them recognize speech patterns and key information. Students also reported increased accuracy and confidence in listening, supported by real-time feedback and adaptive features within the app.

Additionally, MemoryLingo encouraged independent learning by allowing students to practice at their own pace without relying on classroom instruction. The app's interactive and gamified features made the learning process more engaging and helped maintain students' motivation. Despite some challenges, such as difficulty with fast-paced audio, the overall response from students was positive. These results suggest that MemoryLingo can serve as a valuable supplementary tool in English listening instruction, especially in digital or blended learning environments. Educators may consider integrating such applications into their teaching strategies to support listening development and learner autonomy.

Future research should involve a larger and more diverse sample to examine the long-term impact of MemoryLingo. Comparative studies with other digital learning platforms are also recommended to identify the most effective tools for improving listening skills in various EFL contexts.

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