ISSN 2986-6871 (online)
Jurnal Pendidikan Dasar & Menengah
EduMedia
SK Badan Riset & Inovasi Nasional (BRIN) Nomor: 29866871/II.7.4/SK.ISSN/05/2023

Benefits of AI-Based Application in Facilitating English Learning

Alvionita Damayanti[1*], Roni Kurniawan[2], Astrid Shalli Anzila[3]
Titik Rahmawati[4], Rafi[5], Iwan Fauzi[6]

[1,2,3,4,5,6] FKIP Universitas Palangka Raya, Kalimantan Tengah, Indonesia

Article Information:

Submitted: 8-Agustus-2025
Revised: 7-September-2025
Accepted: 11-September-2025

Available online:
15-September-2025

*Corresponding author:
alvionitadamayanti17@gmail.com

Article DOI:
https://doi.org/10.69743/edumedia.v3i2.48

Abstract: This study investigates the role of Artificial Intelligence (AI) applications in enhancing vocabulary acquisition and receptive skills—specifically reading and listening—in English language learning. Focusing on three widely used platforms—Memrise, Cake, and Duolingo—a literature review of 21 peer-reviewed sources was conducted. Findings indicate that Memrise effectively supports vocabulary retention through spaced repetition and native speaker input, Cake addresses listening comprehension challenges via authentic, adaptive video materials, and Duolingo promotes vocabulary growth and reading fluency through gamified, personalized learning. Collectively, these AI tools foster learner autonomy, sustain motivation, and create flexible, engaging learning environments. The study underscores the importance of strategically integrating AI technologies into English as a Foreign Language (EFL) instruction to address diverse learner needs and improve learning outcomes.

Keywords: AI applications, EFL learning, vocabulary development, receptive skills, adaptive learning

Abstrak: *Penelitian ini menyelidiki peran aplikasi Kecerdasan Buatan (AI) dalam meningkatkan pemerolehan kosakata dan keterampilan reseptif—khususnya membaca dan mendengarkan—dalam pembelajaran bahasa Inggris. Berfokus pada tiga platform aplikasi yang banyak digunakan—Memrise, Cake, dan Duolingo—penelitian ini melakukan tinjauan literatur dari 21 sumber artikel yang sudah melewati proses peer-review. Temuan menunjukkan bahwa Aplikasi Memrise secara efektif mendukung retensi kosakata melalui pengulangan berjangka dan input penutur asli. Sementara itu, aplikasi Cake mengatasi tantangan pemahaman mendengarkan melalui materi video yang otentik dan adaptif, dan aplikasi Duolingo mempromosikan pertumbuhan kosakata dan kefasihan membaca melalui pembelajaran yang dipersonalisasi dan mengandung permainan. Secara kolektif, perangkat AI ini menumbuhkan kemandirian peserta didik, mempertahankan motivasi, dan menciptakan lingkungan belajar yang fleksibel dan menarik. Penelitian ini menggarisbawahi pentingnya mengintegrasikan teknologi AI secara strategis ke dalam pengajaran Bahasa Inggris sebagai Bahasa Asing (EFL) untuk memenuhi beragam kebutuhan pembelajar dan meningkatkan hasil pembelajaran.*

Kata kunci: *aplikasi AI; pembelajaran EFL, pengembangan kosakata, keterampilan reseptif, pembelajaran adaptif*

1. INTRODUCTION

Language is central to human communication, enabling individuals to share ideas, express emotions, and build connections across cultures. Among global languages, English occupies a dominant role as a medium of international communication, education, and collaboration. Consequently, English has become a mandatory subject in many education systems, where learners are expected to master the four core skills of speaking, writing, reading, and listening.

CARA MENGUTIP:
Damayanti, A., Kurniawan, R., Anzila, A.S., Rahmawati, T., Rafi., Fauzi, I. (2025). Benefits of AI-Based Application in Facilitating English Learning. *Jurnal Pendidikan Dasar & Menengah – Edumedia*, *3*(2), 135–145. DOI: https://doi.org/10.69743/edumedia.v3i2.48

Despite its importance, English teaching in many contexts remains rooted in traditional methods, emphasizing grammar memorization and limited opportunities for authentic practice. These approaches often leave learners overdependent on teachers and hinder the development of essential receptive skills—reading and listening—which form the basis for productive skills. As Masduqi (2016) observed, receptive skills act as an entry point into language learning, enabling students to process meaningful input before producing language themselves. Similarly, Dakhi and Fitria (2019) stressed that vocabulary is the foundation for communicative competence, a view supported by Salawazo et al. (2020), who found that vocabulary mastery strengthens both receptive and productive abilities.

However, traditional classrooms often lack authentic resources and individualized practice, limiting learners' exposure to natural language input. Khalaf and Zin (2018) noted that these constraints frequently impede effective language learning, particularly in listening, where challenges such as unfamiliar accents or cultural references are common (Nushi & Orouji, 2020). These gaps underscore the need for alternative approaches that can provide both authentic input and adaptive support.

Recent studies suggest that Artificial Intelligence (AI) offers such opportunities. Kristiawan et al. (2024); Fauzi et al. (2022) emphasized AI's potential to simulate conversational practice, deliver instant feedback, and create engaging, adaptive environments for learners. Similarly, Prabawati et al. (2021); Asi et al. (2024) showed that online platforms enhance motivation, reduce boredom, and provide more efficient pathways for learning. Against this backdrop, widely used AI applications such as Memrise, Cake, and Duolingo have gained attention for their accessibility and potential to strengthen vocabulary, listening, and reading skills through gamification, adaptive learning, and multimedia content.

Building on these theoretical and empirical foundations, this study investigates how Memrise, Cake, and Duolingo contribute to vocabulary development and receptive skill acquisition in EFL contexts. By synthesizing evidence from prior research, it seeks to clarify their distinct roles and highlight their pedagogical value in supporting more effective and engaging English language instruction.

2. LITERATURE REVIEW

The integration of Artificial Intelligence (AI) into English language learning has attracted growing attention in recent years, with research highlighting its capacity to enhance both vocabulary acquisition and receptive skills. Vocabulary is widely recognized as a fundamental component of language competence, serving as the foundation for developing the four core skills of speaking, writing, reading, and listening. Dakhi and Fitria (2019) emphasize that vocabulary provides the basic structure upon which communicative competence is built, a view echoed by Salawazo et al. (2020), who observed that mastery of vocabulary strengthens learners' overall proficiency across receptive and productive skills. In this sense, vocabulary development is not an isolated task but rather an essential prerequisite for successful language use.

Receptive skills—reading and listening—have also been established as critical for supporting language development. Masduqi (2016); Fauzi (2024) note that students often begin

their language learning journey through these receptive skills, which in turn prepare them for productive tasks such as speaking and writing. Reading is particularly tied to academic performance, with Laličić and Dubravac (2021) reporting that strong reading proficiency correlates with overall success in language learning. Similarly, listening skills are indispensable for authentic communication, yet they are often considered among the most challenging for EFL learners due to limited exposure to native speech. Nushi and Orouji (2020) highlight that without explicit listening strategies, students struggle to comprehend authentic spoken input, while Khalaf and Zin (2018) point out that traditional classroom practices often lack the authentic materials and individual practice opportunities needed to strengthen receptive skills.

Within this context, AI applications offer an innovative approach to overcoming the limitations of conventional instruction. Kristiawan et al. (2024); Fauzi et al. (2025) underline the value of AI in language learning, noting its ability to simulate conversational practice, provide immediate feedback, and design engaging, adaptive learning environments. Online media, as Prabawati et al. (2021) found, also increases motivation, reduces boredom, and makes learning more efficient. This shift toward digital learning reflects a growing recognition that learners benefit from flexible, interactive platforms that allow for autonomous practice.

Specific AI-based tools have demonstrated unique contributions to language learning. Memrise, for instance, employs spaced repetition and multimedia resources, enabling learners to retain vocabulary more effectively. Aprizal and Wachyudi (2024) reviewed multiple studies confirming Memrise's positive impact on vocabulary mastery, learner autonomy, and motivation, while Zohoorian et al. (2022) demonstrated that EFL learners using Memrise significantly outperformed those relying on traditional methods. Additional studies by Rohim et al. (2022), Nurani et al. (2023), and Mirdad et al. (2023) further confirmed the app's effectiveness across diverse learner populations, highlighting its adaptability and perceived usefulness in fostering independent vocabulary learning.

Cake, by contrast, focuses primarily on listening comprehension. Through the use of authentic, subtitled video materials, the app creates engaging contexts for learners to process spoken English. Putri and Siregar (2024) demonstrated that Cake enhances students' listening comprehension by tailoring materials to their level and interests. Similarly, Dewi and Sulistyawati (2023) observed that its adaptive feedback and personalization features align with principles of adaptive learning, offering customized pathways that support different learner needs. Supporting this, Lobanova et al. (2024) highlighted the motivational benefits of incorporating audio-visual content such as movies and songs, which sustain attention and make language input more engaging.

Duolingo, one of the most widely adopted AI-based platforms, contributes significantly to vocabulary growth and reading comprehension. Ajisoko (2022) found that Duolingo supported students' reading comprehension in higher education contexts, while Elmotri et al. (2025) confirmed that users of the app demonstrated measurable gains in word recognition and reading proficiency compared to traditional methods. The platform's motivational framework, built on gamification and adaptive sequencing, was shown by Muttaqin et al. (2025) to increase learner independence and engagement, while Golub et al. (2024) emphasized its accessibility and personalized instruction as factors contributing to its widespread use. However, research

by Nguyen and Nguyen (2025) indicated that Duolingo's listening features, though helpful, remain limited in depth compared to platforms designed specifically for auditory comprehension, such as Cake.

Taken together, the literature suggests that AI-based tools such as Memrise, Cake, and Duolingo address different yet complementary aspects of English language learning. By enhancing vocabulary retention, listening comprehension, and reading fluency, these platforms not only provide authentic and adaptive input but also foster autonomy and motivation. As such, they present a compelling case for their integration into EFL classrooms to complement traditional instruction and support more holistic language development.

3. RESEARCH METHOD

This study employed a literature review approach to examine the role of AI-based applications in enhancing vocabulary acquisition and receptive skills—specifically reading and listening—in English as a Foreign Language (EFL) contexts. The aim was to synthesize evidence on how selected AI tools contribute to these skill areas and to identify their pedagogical implications for modern language instruction.

To ensure the review was comprehensive and up to date, relevant literature was gathered through systematic searches in *Google Scholar, ResearchGate, ScienceDirect*, and *ERIC*. The search employed keywords such as AI in English learning, *Memrise* vocabulary, *Cake* listening skills, *Duolingo* reading comprehension, and AI-based EFL learning tools. Only studies published between 2018 and 2025 were considered, ensuring both currency and relevance in addressing recent developments in AI-assisted language learning.

In determining the scope of the review, several inclusion criteria were applied. Studies were selected if they examined the use of AI-driven applications in EFL contexts, addressed at least one of the following areas—vocabulary acquisition, reading comprehension, or listening skills—and were published in peer-reviewed journals, conference proceedings, or other reputable academic platforms with full-text availability. Additionally, eligible studies needed to report either empirical findings or synthesized evidence that directly related to AI-assisted English learning.

At the same time, exclusion criteria were established to maintain the focus and rigor of the review. Studies were excluded if they focused solely on productive skills such as speaking or writing without addressing vocabulary or receptive skills, discussed general e-learning tools without AI integration, or lacked sufficient methodological detail to assess credibility.

Following this process, a total of 21 relevant studies were identified and analyzed. Each study was examined to determine the targeted language skills, the AI application used (*Memrise*, *Cake*, or *Duolingo*), key pedagogical features, and the reported outcomes in terms of learner performance, motivation, and autonomy. The extracted findings were then organized thematically, allowing for a clear comparison of the unique contributions and limitations of each application. These thematic insights served as the foundation for the subsequent discussion on the comparative benefits of AI-enhanced learning environments in EFL contexts.

4. RESULTS

4.1 *Memrise* App

Memrise is a language-learning application (app) that applies frequent repetitions and memory-learning strategies to enable its users to grasp new vocabulary. Learning process can be more authentic and interesting through videos of native speakers showing the usage of words in real life situations. Past research has already shown that Memrise with its combination of spaced repetition, gamification, and user-focused features has a vastly positive effect on vocabulary acquisition and retention in students. A literature review conducted by Aprizal and Wachyudi (2024) shows that Memrise is an effective mobile-assisted vocabulary learning tool as it continuously demonstrates findings of various studies that it positively affects vocabulary mastery, learner autonomy, and motivation. A quasi-experimental study conducted by Zohoorian et al. (2022) allows supporting this idea because the authors revealed the pedagogical effectiveness of Memrise by identifying a statistically significant difference in vocabulary achievement between EFL learners who used the app and those who followed the traditional textbook method. Such universally replicating findings across a variety of learning conditions and learner populations suggest that the design features of Memrise including adaptive repetition and multimedia integration are largely applicable and beneficial in the teaching of vocabulary.

The effectiveness of Memrise in various educational settings was also confirmed by Rohim et al. (2022), who confirmed the existence of a significant positive effect of the application on the knowledge of vocabulary among junior high school students. Moreover, a qualitative investigation by Nurani et al. (2023) found Memrise to be perceived by English language learners as an effective, versatile, and satisfying tool to independently learn vocabulary, which positively affected the motivational aspects of learners, their time management, and autonomous skills acquisition. Finally, the possible impact of Memrise in supporting vocabulary development on a wider population of learners was noted in Mirdad et al.'s (2023) study where they showed that vocabulary acquisition and participation via the app were enhanced even in non-English English learners. All of these findings point to the advantage of Memrise not only as a tool for vocabulary acquisition but also as an instrument for fostering learner independence in various educational settings.

4.2 *Cake* App

Cake is a mobile application that uses videos and their corresponding subtitles to help students learn English. This application helps learners improve their listening comprehension skills by watching authentic videos of spoken language multiple times. The Cake application enhances learners' listening skills through short interactive videos with Indonesian subtitles, Western movies, cartoons, and television series tailored to each learner's level and interests (Putri & Siregar, 2024).

According to Uzer (2018:46) emphasizes how listening is the most important skill for learners to start with because it helps in reading, writing, and speaking. Effective listening yields many benefits such as higher comprehension of oral language, effective communication and interpersonal relationships, enhanced vocabulary and pronunciation, better academic

achievements, and an enhanced ability to respond appropriately and thoughtfully during interactions. Despite these benefits, learners may experience challenges with listening. Chen and Le (2021) ascribe problems with understanding spoken English to such concerns as insufficient pacing and limited vocabulary knowledge. Furthermore, Jiang and Dewaele (2019) note that gaps in listening skills may stem from insufficient knowledge of cultural references which can inhibit understanding for EFL learners. Thus, Cake application addresses all of these problems with its adaptive learning features and entertaining materials.

Cake has adaptive features which allow to customize a specific learner's content in a way that matches their skill level and helps them improve listening, pronunciation, and vocabulary effortlessly. The integration of technology in teaching provides the English Language Teaching (ELT) sector with extensive opportunities to enhance learning for the digital generation and build more adaptable education (Dewi & Sulistyawati, 2023). Here, adaptable refers to an adaptive learning technology's capability of modifying instructional content and techniques to fit the separate processes of each pupil, including his or her needs, competencies, and even the rhythm of learning. This means that learners are provided with materials aligned to their current skills, enabling them to improve more efficiently. Meanwhile, responsive the system's ability to swiftly adjust to a student's actions in the learning process, including providing instant feedback, suggestions, or aid depending on the learner's performance. The combination of these features creates a more tailored and efficient learning experience for the digital generation.

Furthermore, Cake offers fun English learning materials tailored to the interests of the learners. Through this engagement, learners can improve their listening skills, enrich their vocabulary, and get motivated to practice English regularly. Lobanova et al. (2024) pointed out that audio and video recordings from songs, movies and television shows capture the attention of learners of any age and should be included in lessons to make learning more engaging and educational. Incorporating interactive learning into such content not only increases student enthusiasm, but it also helps to improve many language abilities at the same time. Therefore, integrating Cake as one of the empower AI application tools is recommended for those who want to improve their English skill, specifically listening.

4.3 *Duolingo* App

Among the most famous AI-based language learning applications is Duolingo that provides gamified and adaptive learning experiences with the focus on vocabulary building and reading comprehension. Besides, Duolingo can be effective in studying English daily, which means the app is effective in assisting learners in enhancing their reading comprehension abilities (Ajisoko, 2022).

These teaching techniques are further enhanced in the gamified context of Duolingo that incorporates elements of goal-setting, progress bar, and rewarding to stimulate the formation of a habit and increase motivation among the learners. Comparative studies conducted by Elmotri et al. (2025) showed that Duolingo users have shown an objective increase in language proficiency, in particular in word recognition and reading comprehension comparable to those who utilized more traditional and structured methods. Their article emphasized the fact that students found the adaptive model of Duolingo the most favorable as it is readily available and

highly personalizable and effective in maintaining attention due to its fast and rewarding textual interactions.

In another point, even though Duolingo has audio capabilities like text-to-speech reading, pronunciation modeling, and simple listening comprehension exercises, their range and depth are very limited. Duolingo's audio content is more helpful than essential when compared to services like Cake that are specifically designed with listening in mind. Instead of fostering the development of comprehensive listening skills requiring lengthy conversation or a variety of speech settings, its primary purpose is to teach pronunciation and the recognition of written words. This limitation aligns with research by Nguyen and Nguyen (2025), who observed that while AI-generated audio resources may reduce the cognitive burden on learners, they frequently lack the complexity and authenticity needed for advanced listening comprehension, especially when used in situations with a variety of accents, natural speech patterns, and interactive audio-visual stimulus. Despite its auditory depth limits, Duolingo's main advantage is not in offering extensive listening exercise but rather in encouraging long-term, independent language study through its thoughtfully created user interface. Features that emphasize accessibility and learner motivation two important factors that support its widespread popularity and regular use strengthen its attractiveness even more.

This method not only enhances student involvement but also builds motivation from within, making it essential for the sustained independent acquisition of languages over time. The work of Muttaqin et al. (2025) demonstrated in their study of gamified learning powered by Duolingo that goal-setting, earning points, and progress tracking boosts learners' independence, mastery, and connectedness; the latter three needs under self-determination theory. Motivating and engaging features of the app, as reported in their study, resulted in a significant increase in student motivation, particularly in vocabulary acquisition.

Generally, learning English through Duolingo is positively viewed due to the benefits that come with it. These benefits include the ease of accessing it at their own time and schedule as well as from any location of their choice. In addition, tailored lessons provided by chatbots which adapt to the learner's pace and extend based on their progress provide personalized learning. Additionally, Golub et al. (2024) notes that the motivation and engagement of students throughout the learning process is enhanced throughout the learning process

5. DISCUSSION

The findings of this review confirm that AI technologies can play an important role in enhancing vocabulary acquisition and receptive skills when designed with adaptive, interactive, and learner-centered features. Each application demonstrates unique contributions while collectively reinforcing the value of AI integration in English language learning.

5.1 *Memrise* App and Vocabulary Retention

The review of studies showed that Memrise is particularly effective for vocabulary acquisition and retention. Its use of spaced repetition, multimedia features, and authentic input from native speakers was reported to enhance learners' ability to recall vocabulary over time. Aprizal and Wachyudi (2024) emphasized its effectiveness as a vocabulary learning tool, while Zohoorian et al. (2022) found that EFL learners using Memrise achieved significantly higher

vocabulary gains than those relying on traditional textbook-based methods. Additional studies further confirmed positive learner perceptions, noting improvements in autonomy, motivation, and time management (Rohim et al., 2022; Nurani et al., 2023; Mirdad et al., 2023).

The consistent success of Memrise across diverse learner populations highlights the importance of spaced repetition and authentic multimedia input in supporting long-term vocabulary retention. These features align with cognitive theories of memory, which emphasize retrieval practice and contextual exposure as key to strengthening linguistic knowledge. Furthermore, learners' positive perceptions of Memrise suggest that its design fosters both autonomy and motivation, making it a versatile tool across different educational settings.

5.2 *Cake* App and Listening Comprehension

Findings also indicated that Cake is highly beneficial for listening comprehension. Its short, subtitled videos provided learners with authentic input tailored to their proficiency levels. Putri and Siregar (2024) demonstrated that the application improved students' listening comprehension by offering engaging and level-appropriate materials. Dewi and Sulistyawati (2023) highlighted its adaptive feedback features, which supported personalized learning, while Lobanova et al. (2024) showed that multimedia integration, including films and songs, sustained learner engagement while strengthening multiple language abilities.

The effectiveness of Cake lies in its ability to overcome traditional listening barriers by providing learners with level-appropriate, authentic video content. Its adaptive feedback system offers personalized support, while its multimedia integration sustains engagement. These findings align with Krashen's Input Hypothesis, which highlights the value of comprehensible input in language acquisition. Cake's design demonstrates how technology can make challenging receptive skills more accessible and engaging for learners.

5.3 *Duolingo* App and Reading Fluency

Results regarding Duolingo showed that the app is effective for vocabulary growth and reading comprehension, though its contribution to listening skills was more limited. Ajisoko (2022) reported that Duolingo improved students' reading comprehension in higher education, while Elmotri et al. (2025) found measurable increases in word recognition and reading fluency. The platform's motivational framework, driven by gamification and adaptive challenges, was shown to sustain learner engagement and independence (Muttaqin et al., 2025). Similarly, Golub et al. (2024) emphasized the accessibility and personalization offered by Duolingo, though Nguyen and Nguyen (2025) noted that its listening features lacked the depth required for advanced auditory comprehension.

Duolingo's greatest contribution is its gamified learning structure, which motivates learners to practice consistently while building vocabulary and reading comprehension. Its motivational framework reflects principles of Self-Determination Theory, particularly autonomy and competence, which are crucial for sustaining long-term engagement. However, its limited listening features highlight the need for complementary tools such as Cake to provide more comprehensive receptive skill training.

6. CONCLUSION

This review demonstrates that AI-based applications—specifically Memrise, Cake, and Duolingo—offer significant potential for enhancing vocabulary acquisition and receptive skills in EFL contexts. Each platform leverages adaptive learning, interactive content, and learner-centered design to address distinct aspects of language development. Memrise excels in long-term vocabulary retention through spaced repetition and authentic multimedia input; Cake effectively overcomes listening comprehension barriers by providing engaging, level-appropriate video materials; and Duolingo promotes vocabulary growth and reading fluency through gamified, personalized learning experiences.

Beyond individual strengths, these tools collectively foster learner autonomy, sustained motivation, and flexible learning opportunities that can complement traditional classroom instruction. Integrating them strategically into EFL curricula can bridge gaps in practice time, access to authentic materials, and personalized feedback—challenges often faced in conventional teaching.

As educational technology continues to evolve, it is essential for educators and curriculum designers to consider AI tools not as supplementary options but as integral components of modern language instruction. Future research should explore the long-term effects of AI-assisted learning, investigate combined use of multiple platforms, and examine their impact on both receptive and productive skills. By doing so, AI integration can move beyond novelty and become a sustained driver of effective, inclusive, and engaging English language learning.

REFERENCES

Ajisoko, P. (2022). Using Duolingo Apps To Improve English Reading Comprehension of Engineering Students in Universitas Borneo Tarakan. *Exposure : Jurnal Pendidikan Bahasa Inggris*, *11*(1), 1–6. https://doi.org/10.26618/exposure.v11i1.6452

Aprizal, A. D., & Wachyudi, K. (2024). The effectiveness of Memrise as a vocabulary learning tool: A literature review. *Jurnal Ilmiah Wahana Pendidikan, 10*(4), 8–17. https://doi.org/10.5281/zenodo.10499120

Asi, N., Fauzi, I., Lestari, A., Mardiana, D., & Amalia, N. (2024). Exploring the Experience of EFL Learners on a Website for Language Learning to Practice Speaking English. *Journal of English Teaching and Learning Issues*, *7*(2), 107-120. https://doi.org/10.21043/jetli.v7i2.26667

Chen, S., & Le, T. T. (2021). *The TESOL research training journey: voices from international PhD students*. Routledge.

Dakhi, S., & Fitria, T. N. (2019). The Principles and the Teaching of English Vocabulary: A Review. *JET (Journal of English Teaching)*, *5*(1), 15. https://doi.org/10.33541/jet.v5i1.956

Dewi, N., & Sulistyawati, M. E. S. (2024). Pemanfaatan Teknologi Pembelajaran Adaptif dalam Bahasa Inggris untuk Generasi Digital: Sebuah Analisis Komprehensif. *Intelektium*, *4*(2), 71–76. https://doi.org/10.37010/int.v4i2.1438

Elmotri, B., Osman, O., Garrouri, S. S., Elyasa, Y. M., Amri, F., Rabeh, M. D., ... & Embadi, S. (2025). *Unlocking language proficiency: A comprehensive comparison of Duolingo and Oxford English Coach effectiveness in language learning. Mediterranean Journal of Social Sciences, 16*(1), 22–39. https://doi.org/10.36941/mjss-2025-0003

Fauzi, I., Hartono, R., Widhiyanto, W., & Pratama, H. (2022). Web-based language learning: Benefits for enhancing EFL learners' speaking skill. In *International Conference on Science, Education, and Technology.* October 2022 (Vol. 8, pp. 192-196).

Fauzi, I. (2024). MALL in English Language Teaching: The Instructional Model of Integrating Four Skills Facilitated by WhatsApp Application. In *Proceeding International Conference on Education.* October 2024 (pp. 141-149).

Fauzi, I., Hartono, R., Rukmini, D., & Pratama, H. (2025). AI Applications for EFL Learners: Enhancing Speaking Performance and Reducing Anxiety with Gender-Based Analysis. *Forum for Linguistic Studies*, *7*(9), 282–301. https://doi.org/10.30564/fls.v7i9.10192

Golub, T. P., Kovalenko, O. O., Nazarenko, O. I., & Zhygzhytova, L. M. (2024). The role of Duolingo in English teaching and learning in higher education. *Academic Studies. Series "Pedagogy"*, *1*(1), 4–9. https://doi.org/10.52726/as.pedagogy/2024.1.1

Jiang, Y., & Dewaele, J. M. (2019). How unique is the foreign language classroom enjoyment and anxiety of Chinese EFL learners? *System*, *82*, 13-25.

Khalaf, B. K., & Zin, Z. B. M. (2018). Traditional and inquiry-based learning pedagogy: A systematic critical review. *International Journal of Instruction*, *11*(4), 545–564. https://doi.org/10.12973/iji.2018.11434a

Kristiawan, D., Bashar, K., & Pradana, D. A. (2024). *Artificial intelligence in English language learning: A systematic review of AI tools, applications, and pedagogical outcomes*. The Art of Teaching English as a Foreign Language (TATEFL), 5(2), 207–218. https://doi.org/10.36663/tatefl.v5i2.912

Laličić, A., & Dubravac, V. (2021). The role of reading in English language classrooms. *MAP Social Sciences, 1*(1), 23–36. https://doi.org/10.53880/2744-2454.2021.1.1.23

Lobanova, O., Fedorova, E., Vobolevich, A., Minakova, P., & Rybakova, L. (2024). Virtual reality technologies for learning English: An example of using Immerse. *International Journal of Evaluation and Research in Education (IJERE)*, *13*(6), 4409-4419.

Masduqi, H. (2016). Integrating Receptive Skills and Productive Skills into a Reading Lesson. *The 2nd International Conference on Teacher Training and Education*, *2*(1), 507–511. https://jurnal.uns.ac.id/ictte/article/view/7476

Mirdad, M., Halim, A., & Abidin, A. (2023). Students' perceptions of Memrise app use in learning vocabulary. *Journal of English Language Studies, 4*(2), 78–87.

Muttaqin, M. I., Zuhdi, H., & Ridwan, R. (2025). The use of gamification-based Duolingo application in increasing student motivation is reviewed from the theory of self-determination. *Al-Wijdān: Journal of Islamic Education Studies, 10*(1), [Article 5844]. https://doi.org/10.58788/alwijdn.v10i1.5844

Nguyen, N. L., & Nguyen, T. (2025). The impact of implementing AI-generated audio transcriptions on English majors' cognitive load. *AsiaCALL Online Journal, 16*(1), 67–79. https://doi.org/10.54855/acoj.251617

Nurani, E. S. D., Fikri, D., & Rahmawati, H. (2023). English students' perceptions of the use of Memrise application in learning English vocabulary independently. *Jurnal Pendidikan dan Pembelajaran (JP3), 18*(18), 1–15.

Nushi, M., & Orouji, F. (2020). Investigating EFL teachers' views on listening difficulties among their learners: The case of Iranian context. *SAGE Open, 10*(2). https://doi.org/10.1177/2158244020917393

Prabawati, A., AM, S. A., & AM, S. A. (2021). The Students ' Perception of the Online Media Used By. *English Language Teaching Methodology*, *1*(3), 169–181.

Putri, R.E.A., & Siregar, Y.D. (2024). Enhancing English Listening Skills: a Case Study of the Cake Application in Student Learning. *Eduvest-Journal of Universal Studies*, *4*(4), 1767–1779. http://eduvest.greenvest.co.id

Rohim, R. F., Gumelar, R. E., & Riandi, R. (2022). The effect of Memrise application towards students' vocabulary mastery. *Journal of English Language Learning (JELL), 6*(2), 194–198.

Salawazo, I. S., Simbolon, M., Hutabarat, V. E., Veronika, A. N., & Saragih, E. (2020). Analysis of students' vocabulary in learning English. *Linguistic, English Education and Art (LEEA) Journal*, *3*(2), 469-475.

Uzer, Y. V. (2016). Teaching Listening by using Information Transfer Diagram Activity to the Seventh Grade Students of the State Junior High School 43 of Palembang. *ELTE Journal (English Language Teaching and Education)*, *6*(1), 45–53.

Zohoorian, Z., Noorbakhsh, M., & Zeraatpishe, M. (2022). EFL learners' vocabulary achievement and autonomy: Using Memrise mobile application. *Indonesian Journal of EFL and Linguistics, 7*(2), 233–249. https://doi.org/10.21462/ijefl.v7i2.487