# THE ROLE OF TECHNOLOGY IN ENHANCING ENGLISH SPEAKING SKILLS A LITERATURE OVERVIEW

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## ABSTRACT

This literature review explores the role of technology in enhancing English speaking skills, focusing on how various technological tools such as gamification, speech recognition, and online collaboration align with the principles of Communicative Language Teaching (CLT). The review discusses the effectiveness of these tools in improving fluency, accuracy, and confidence in English language learners, while also addressing the challenges faced by both learners and educators in integrating technology into speaking-focused instruction. Furthermore, it examines how these technologies support the core CLT principle of authentic communication. The review concludes with a discussion of the pedagogical implications and future directions for the integration of technology in English speaking instruction, highlighting the importance of balancing technology use with traditional communicative practices for optimal learner outcomes.

**Keyword :** *Technology, English Speaking Skills, Communicative Language Teaching, Gamification, Speech Recognition.*

## INTRODUCTION

In the era of globalization, proficiency in English speaking skills has become a critical requirement for effective communication in academic, professional, and social contexts (Fauziningrum et al, 2023; Franchisca et al, 2024, Hartono et al, 2023; Sari & Ningsih, 2022). As a global lingua franca, English enables individuals to access international opportunities, connect across cultures, and engage in knowledge-sharing. However, acquiring and mastering speaking skills remains a significant challenge for learners of English as a second or foreign language (ESL/EFL), primarily due to limitations in exposure, interaction opportunities, and personalized feedback (Kamaruddin et al, 2024; Ilmi et al, 2024; Sari, 2021; Sari & Ningsih, 2023a).

Technology has emerged as a transformative tool in language education, addressing many of these challenges (Ningsih & Sari, 2021; Rusmiyanto et al, 2023; Sari & Ningsih, 2023b; Ningsih & Sari, 2024). The integration of digital tools, such as mobile applications, online platforms, virtual reality, and artificial intelligence, offers learners innovative pathways to practice and enhance their speaking skills. These technologies facilitate immersive experiences, provide real-time feedback, and promote collaborative learning, aligning with the principles of communicative language teaching (CLT) and learner autonomy.

Zulfikhar et al (2024), Hanifah et al (2023), and Wulantari et al (2023) mention the growing body of research on the role of technology in language learning underscores its potential to improve speaking proficiency. Studies highlight the effectiveness of tools like speech recognition software, conversational AI, and gamified learning environments in increasing learners' confidence, fluency, and accuracy. Despite these advancements, there is still a need to synthesize findings, identify gaps, and explore best practices to maximize the impact of technology on English speaking skills.

This literature overview aims to examine the current state of research on the role of technology in enhancing English speaking skills. By analyzing theoretical frameworks, key technological interventions, and empirical findings, the review seeks to provide a comprehensive understanding of the opportunities and challenges in this area. This analysis will contribute to the development of evidence-based strategies for integrating technology into language education, ultimately supporting learners in achieving their communicative goals.

The integration of technology into language learning, particularly for enhancing English speaking skills, has been extensively explored in recent years. Numerous studies have highlighted the potential of technological tools to create engaging, interactive, and learner-centered environments. As Hubbard (2009) argues, “technology, when used effectively, can provide authentic opportunities for learners to practice their speaking skills in real-world contexts.”

### Mobile-Assisted Language Learning (MALL)

Mobile technology is one of the most accessible and widely adopted tools in language learning. Mobile applications such as Duolingo, Speak, and HelloTalk offer learners opportunities to practice speaking through interactive exercises, speech recognition features, and real-time communication with native speakers. According to Kim and Kwon (2012), “MALL applications

enhance speaking proficiency by promoting frequent practice, self-assessment, and immediate feedback." Similarly, Zhang et al. (2020) found that speech recognition technology in mobile apps increased learners' pronunciation accuracy and confidence.

**Artificial Intelligence and Chatbots**

Artificial intelligence (AI) and conversational chatbots are emerging as powerful tools for language education. AI-powered applications like ELSA Speak and Google Assistant allow learners to engage in simulated conversations and receive instant feedback on pronunciation and grammar. Xu and Wang (2019) and Fatmawati et al (2024) emphasize that "AI-based systems can replicate human interaction, offering learners an opportunity to practice speaking in a stress-free environment." Furthermore, such tools have shown promise in developing learners' fluency by enabling them to practice extended discourse without interruptions (Mishra et al., 2021).

**Virtual Reality (VR) and Augmented Reality (AR)**

Virtual and augmented reality technologies provide immersive environments where learners can practice speaking in realistic contexts. For instance, platforms like Mondly VR and ImmerseMe allow users to interact in simulated settings such as restaurants, airports, or interviews. According to Cheng and Tsai (2020), "VR creates a safe space for learners to experiment with language without fear of judgment, thus boosting their willingness to communicate." Moreover, these technologies support experiential learning, making language acquisition more meaningful and contextually relevant.

**Gamification and Online Collaboration**

Gamified platforms and online collaborative tools have also shown effectiveness in promoting speaking skills. Games like Kahoot! and role-playing simulations engage learners in competitive and cooperative tasks, fostering active participation. Zainuddin et al. (2020) note that "gamification not only motivates learners but also encourages them to use the target language more frequently." Collaborative platforms like Zoom and Microsoft Teams further enhance speaking practice by enabling group discussions, presentations, and peer feedback sessions.

**Challenges and Limitations**

Despite its advantages, the integration of technology in enhancing speaking skills is not without challenges. Issues such as digital literacy, accessibility, and cultural appropriateness of tools can impact their effectiveness. As Warschauer and Healey (1998) point out, "technology cannot replace the role of skilled teachers and facilitators in guiding learners through the complexities of language use."

To conduct this research, here are three research questions used for the article:

1. How effective are various technological tools (e.g., mobile applications, AI chatbots, and virtual reality) in improving the fluency, accuracy, and confidence of English language learners in speaking skills?
2. What challenges do learners and educators face in integrating technology into speaking-focused English language instruction, and how can these challenges be addressed?
3. To what extent do different technological approaches (e.g., gamification, speech recognition, online collaboration) align with the principles of communicative language teaching in fostering English speaking skills?

## METHOD

This study adopts a qualitative approach by conducting a literature review to analyze the role of technology in enhancing English speaking skills. Gideon et al (2023) mention the literature review method is chosen to synthesize existing research, identify patterns, and draw insights from a broad range of studies, theoretical frameworks, and empirical findings. This method enables a comprehensive understanding of the topic and provides evidence-based conclusions.

### Data Collection

The data for this study are collected from various academic sources, including peer-reviewed journal articles, conference proceedings, books, and credible online databases such as Google Scholar, Scopus, and ResearchGate. The selection criteria for the reviewed literature are: (1) studies focusing on the use of technology in teaching or learning English speaking skills, (2) publications from the past 15 years to ensure relevance to current technological trends, and (3) articles that include empirical findings or theoretical discussions on the effectiveness of technological interventions. Keywords such as *technology in language learning*, *English speaking skills*, *mobile-assisted language learning (MALL)*, *virtual reality (VR)*, and *AI in language teaching* are used to locate relevant sources.

### Data Analysis

A thematic analysis approach is employed to categorize and interpret the findings from the reviewed literature. This involves identifying recurring themes such as the effectiveness of mobile applications, the role of artificial intelligence, the impact of virtual and augmented reality, and challenges in integrating technology into speaking instruction. The analysis also examines differences in effectiveness across various learner groups, educational settings, and technological tools.

### Validation

To ensure the reliability and credibility of the findings, only peer-reviewed and widely cited studies are included. The research process involves triangulation by comparing multiple sources discussing similar technological tools or interventions to validate their reported effectiveness and limitations.

This methodical approach provides a robust foundation for evaluating the role of technology in enhancing English speaking skills. The findings aim to guide educators, policymakers, and researchers in designing and implementing technology-driven language learning strategies.

## RESULTS AND DISCUSSION

### Results

### 1. Effectiveness of Technological Tools in Enhancing English Speaking Skills

The integration of technological tools in language learning has proven to be effective in improving fluency, accuracy, and confidence among English language learners. Mobile applications, AI chatbots, and virtual reality (VR) are among the most impactful tools in this regard, offering diverse and innovative approaches to practicing speaking skills.

### Mobile Applications

Mobile-assisted language learning (MALL) applications provide learners with convenient access to speaking practice anytime and anywhere. Features such as interactive dialogues, pronunciation feedback, and gamified activities enhance learners' engagement and progress. As Zhang et al. (2020) found, "mobile applications that incorporate speech recognition technology significantly improve learners' pronunciation accuracy by providing instant and personalized feedback." Additionally, the gamification aspect of apps like Duolingo and Babbel increases learners' motivation to engage in regular speaking practice, which is crucial for developing fluency.

### AI Chatbots

Artificial intelligence (AI)-powered chatbots simulate real-life conversations, allowing learners to practice speaking in a non-judgmental and stress-free environment. Tools like ELSA Speak and Replika provide personalized feedback on pronunciation, grammar, and fluency. Xu and Wang (2019) and Fatmawati et al (2024) note that "AI chatbots replicate authentic conversational experiences, enabling learners to develop their fluency and confidence through repeated practice." These tools also cater to individual learning paces, making them highly effective for diverse learner needs. Mishra et al. (2021) further emphasize that chatbots support extended interaction, which is essential for improving learners' ability to sustain conversations.

### Virtual Reality (VR)

VR creates immersive environments where learners can practice speaking in realistic scenarios, such as giving a presentation or ordering food in a restaurant. These simulations help learners overcome anxiety and build confidence by providing opportunities for experiential learning. Cheng and Tsai (2020) highlight that "VR environments enhance learners' willingness to communicate by reducing the fear of mistakes and offering a safe space to experiment with language." Moreover, VR tools like ImmerseMe and Mondly VR improve fluency by exposing learners to diverse linguistic and cultural contexts, fostering adaptability in real-world communication.

### Overall Effectiveness

The effectiveness of these tools is evident in their ability to address common challenges in speaking skill acquisition. By providing immediate feedback, fostering interactive practice, and creating contextualized learning environments, technological tools significantly contribute to learners' progress. However, their success also depends on factors such as learner motivation, accessibility, and the integration of these tools into comprehensive language learning frameworks. Warschauer (2000) emphasizes that "technology, when combined with effective pedagogy, has the potential to transform language education and promote meaningful skill development."

Therefore, mobile applications, AI chatbots, and VR are highly effective in enhancing English speaking skills, particularly in fluency, accuracy, and confidence. Their adaptability and interactive nature make them valuable resources for language learners, bridging the gap between theoretical knowledge and practical application.

## 2. Challenges in Integrating Technology into Speaking-Focused English Language Instruction

While technology offers significant benefits in enhancing English speaking skills, its integration into language instruction presents several challenges for both learners and educators. These challenges span across issues related to digital literacy, accessibility, learner engagement, and pedagogical alignment. Addressing these obstacles is essential for maximizing the potential of technology in improving speaking skills.

### Digital Literacy and Technological Competence

A primary challenge for learners is the level of digital literacy required to effectively use technological tools. Not all learners possess the necessary skills to navigate mobile applications, AI chatbots, or virtual reality platforms. As Murphy and Ahern (2017) highlight, "students' lack of digital competence can hinder their ability to fully benefit from technological tools, particularly when they are required to operate advanced features or troubleshoot technical issues." Educators may also face difficulties in guiding students who are unfamiliar with these technologies, which

can lead to frustration and disengagement. To address this challenge, both educators and learners need ongoing training in digital literacy, with a focus on using tools for language learning effectively. Providing orientation sessions at the start of a course or program can help build these foundational skills.

**Accessibility and Equity**

Accessibility is another significant barrier in the use of technology for language learning. Learners in low-resource environments may not have access to devices or reliable internet connections, which limits their ability to engage with technology-based learning tools. According to Warschauer (2004), "the digital divide remains a critical issue, with many learners in developing countries unable to benefit from the same technological resources as those in more affluent regions." To overcome this challenge, educators must explore solutions that offer offline capabilities or make use of low-cost, easily accessible technologies, ensuring that all students can participate regardless of their socio-economic background. Additionally, educators should advocate for institutional support to improve access to necessary technological resources.

**Engagement and Motivation**

Another challenge is maintaining student engagement and motivation when using technological tools. Although mobile apps, AI chatbots, and VR can enhance interactivity, learners may struggle to stay motivated or lose interest if the tools lack sufficient personalization or fail to align with their learning preferences. According to Deterding et al. (2011), "gamification and personalized learning experiences are key to maintaining student engagement, as they provide learners with tailored, rewarding experiences." Therefore, it is essential for educators to select tools that not only suit the learners' needs but also encourage active participation. This can be achieved by choosing tools with gamified elements, incorporating social interaction features, and aligning the tools with learners' goals and interests.

**Pedagogical Alignment and Teacher Preparedness**

Educators also face the challenge of aligning technology with effective pedagogical strategies. Simply integrating technological tools without adapting teaching methods may result in ineffective learning experiences. As Thorne (2003) states, "technology should not be seen as a replacement for traditional methods but rather as an enhancement to pedagogical practices." Teachers need to receive professional development in how to incorporate technology effectively into language instruction. This includes understanding how to use digital tools to foster communication, collaboration, and critical thinking while maintaining a student-centered approach to teaching. Additionally, educators should be prepared to adapt and troubleshoot when technology fails or does not work as expected, as technical problems are a common issue in digital learning environments.

**Solutions and Addressing Challenges**

To address these challenges, educators can adopt several strategies. First, investing in training programs for both learners and educators to improve digital literacy is essential. This will ensure that both groups are confident in using technology and can maximize its potential for speaking practice. Second, educators should strive for equity by selecting tools that are accessible and ensuring that learners have the resources they need to participate fully. Third, the use of adaptive and engaging technologies, such as gamified applications or VR, can help maintain learner motivation and ensure that speaking practice remains enjoyable. Finally, ongoing professional development for teachers is crucial in helping them integrate technology into their teaching strategies effectively, ensuring that technology is used in ways that enhance learning outcomes.

In short, while the integration of technology into speaking-focused English language instruction offers immense potential, it is accompanied by challenges related to digital literacy, accessibility, engagement, and pedagogical alignment. By addressing these issues through targeted solutions, both learners and educators can fully benefit from the transformative role of technology in enhancing speaking skills.

**3. Technological Approaches and Communicative Language Teaching (CLT) in Fostering English Speaking Skills**

Communicative Language Teaching (CLT) emphasizes the development of practical communication skills in real-life contexts. Its core principles—such as student-centered learning, authentic communication, and the focus on fluency and interaction—can be effectively supported by various technological approaches. These approaches, including gamification, speech recognition, and online collaboration, align with CLT principles by enhancing learner engagement, promoting interaction, and providing opportunities for meaningful communication (Silaban et al, 2024).

**Gamification and CLT**

Gamification involves the use of game-like elements such as points, levels, and rewards in a non-game context to enhance motivation and engagement. This approach aligns well with CLT's emphasis on interaction and communication. By integrating gamification into language learning, learners are encouraged to participate actively and take risks in speaking, as the game-like environment reduces anxiety and promotes a playful learning atmosphere. As Gee (2003) asserts, "games provide an engaging environment for learning because they present challenges, rewards, and real-time feedback, which mirror the dynamic, unpredictable nature of real-world communication." Moreover, games that simulate real-life scenarios—such as role-playing games or apps like Duolingo—create opportunities for learners to practice speaking in context, which is a core tenet of CLT. By encouraging communication and problem-solving, gamified tools foster the fluency and spontaneity that CLT prioritizes.

**Speech Recognition and CLT**

Speech recognition technology, such as that found in language learning apps like ELSA Speak or Google Assistant, is another technological approach that supports the principles of CLT. This technology provides real-time feedback on pronunciation and fluency, helping learners improve their speaking accuracy while engaging in authentic communicative tasks. According to Pennington (1999), "speech recognition systems allow learners to receive immediate, individualized feedback on their spoken language, which enhances their ability to monitor and improve their speaking skills." This aligns with CLT's focus on accurate communication, as speech recognition not only encourages learners to practice speaking but also helps them develop the phonetic and prosodic aspects of their language production. By providing instant corrections, speech recognition tools create an interactive environment where learners can refine their speech to achieve clearer and more effective communication, crucial for real-world conversations.

**Online Collaboration and CLT**

Online collaboration tools, such as video conferencing platforms (e.g., Zoom), discussion boards, and collaborative documents, foster interaction and authentic communication, which are central to CLT. These tools allow learners to engage in peer discussions, debates, and group tasks that require them to speak, negotiate meaning, and share ideas. As Littlewood (2004) notes, "CLT advocates for the creation of opportunities for learners to use the language for real communication, and online collaboration provides a platform for such interactions in an authentic context." Collaborative activities also encourage learners to work together, providing peer support and feedback, which enhances their confidence and speaking fluency. Platforms such as Skype or Tandem connect language learners with native speakers or other learners around the world, enabling them to practice authentic conversation and gain exposure to different accents, vocabulary, and cultural nuances—key components of communicative competence.

**Integration of Technological Approaches and CLT**

The integration of these technological approaches into a CLT framework offers a holistic environment for learners to develop their speaking skills. Gamification boosts learner motivation and engagement, speech recognition ensures accurate and fluent language use, and online collaboration provides the opportunity for authentic communication. As Thorne (2008) explains, "technology, when used appropriately, can significantly enhance communicative language teaching by facilitating interaction, offering real-time feedback, and creating authentic learning experiences." These technological tools align with CLT’s focus on fostering fluency, communicative competence, and meaningful interaction.

As a conclusion, gamification, speech recognition, and online collaboration each support the principles of Communicative Language Teaching by fostering authentic, interactive, and student-centered learning environments. These technological approaches not only motivate learners but also provide opportunities for real-world communication and personalized feedback,

essential for developing strong English speaking skills. When used strategically, they complement the communicative focus of CLT, making language learning more dynamic and effective.

## Discussion

The integration of technology into English speaking instruction offers a transformative approach to language learning, especially in alignment with the principles of Communicative Language Teaching (CLT). This section delves into how various technological tools—such as gamification, speech recognition, and online collaboration—enhance the development of speaking skills, while considering their challenges and the implications for pedagogical practice.

### Technology and Learner Engagement in CLT

Gamification is one of the most promising technological tools that supports CLT principles by boosting learner engagement and motivation. According to Gee (2003), games create an interactive and dynamic environment that mirrors real-world communication, fostering a sense of agency and participation. This is particularly crucial in language learning, where active engagement in speaking tasks is essential for fluency development. In the context of CLT, gamification motivates learners to practice speaking by offering rewards, challenges, and a competitive element. It turns learning into a fun, low-pressure experience, which is known to increase learners' willingness to communicate—a key tenet of CLT (Littlewood, 2004). However, while gamification can significantly enhance motivation, it is essential to ensure that games are designed to focus on communicative goals and not just on performance or competition. As Deterding et al. (2011) argue, "the purpose of gamification should extend beyond entertainment to meaningful educational outcomes." This ensures that the game remains a tool for language acquisition, not merely a distraction.

### Speech Recognition Immediate Feedback for Speaking Accuracy

Speech recognition technologies align closely with CLT's focus on accuracy and fluency in communication. Tools like ELSA Speak or Google Assistant provide learners with immediate, personalized feedback on pronunciation, helping them refine their speaking skills in real-time. This direct feedback enhances learners' awareness of their spoken language, supporting the CLT principle of improving both the accuracy and fluency of communication. Pennington (1999) emphasizes the importance of immediate corrective feedback, which allows learners to self-correct and improve their language output. In CLT, where interaction and spontaneous communication are valued, speech recognition supports learners in reducing language errors that may inhibit effective communication in real-world contexts. However, a potential challenge lies in the limitations of speech recognition systems, such as the difficulty in detecting nuanced or accented speech. To address this, it is crucial to use these tools as part of a broader, diversified pedagogical approach that includes human interaction for comprehensive feedback and learning.

**Online Collaboration: Authentic Communication and Real-World Context**

Online collaboration tools are another technological advancement that complements CLT's emphasis on authentic communication. Platforms such as video conferencing (e.g., Zoom), social media forums, and collaborative writing tools allow learners to interact with peers in real-time, simulating real-life conversational scenarios. According to Littlewood (2004), CLT prioritizes authentic interaction, where learners engage in meaningful conversations rather than simply repeating language structures. Online collaboration fosters this by facilitating exchanges between learners, often with speakers from different linguistic or cultural backgrounds, thereby enhancing the relevance and authenticity of their speaking practice. Furthermore, these tools allow learners to use language for communication, rather than as an isolated skill, as they are required to negotiate meaning, clarify misunderstandings, and express ideas spontaneously—central components of communicative competence. However, challenges include the potential for technical difficulties, such as poor internet connections or platform incompatibility, which may disrupt the flow of communication. Educators must ensure that they select reliable, accessible platforms and provide alternative solutions in case of technical issues.

**Addressing the Challenges of Technological Integration**

While these technological approaches align with CLT principles, their effective integration into English speaking instruction requires addressing several challenges. One of the major challenges is ensuring accessibility and equity. Not all learners have access to high-quality technology or stable internet connections, which can limit their ability to fully participate in technology-enhanced language learning activities. As Warschauer (2004) observes, "the digital divide remains a significant barrier to effective technology use in language learning." To address this, educators must consider alternative methods or low-cost solutions, such as mobile-friendly apps or offline activities, to ensure all learners can benefit from technology-based speaking practice.

Another challenge lies in the risk of over-relying on technology at the expense of face-to-face interaction, which is crucial in CLT. While technology offers valuable tools for practice, CLT stresses the importance of human interaction for language acquisition. Therefore, a balanced approach that integrates both technological tools and real-world communication opportunities is essential. As Thorne (2008) notes, "technology should not replace authentic communication but rather enhance it." Teachers can facilitate this balance by incorporating technology as a supplementary tool rather than the sole focus of speaking instruction, ensuring that learners still engage in face-to-face conversation and peer interaction.

**Pedagogical Implications and Future Directions**

For educators, the integration of technology into CLT practices requires continuous professional development. Teachers must not only be skilled in using technological tools but also

in aligning these tools with communicative teaching strategies. This includes understanding how to design lessons that incorporate gamification, speech recognition, and online collaboration in ways that enhance learner interaction, accuracy, and fluency. Furthermore, educators must critically assess the effectiveness of the technological tools they use and adjust their teaching strategies accordingly. As Warschauer (2000) states, "successful integration of technology into language teaching depends on the pedagogical choices made by the teacher and the alignment of these choices with the learners' needs."

In conclusion, technological tools such as gamification, speech recognition, and online collaboration have the potential to significantly enhance English speaking skills in alignment with the principles of CLT. While challenges such as accessibility, over-reliance on technology, and the need for balanced pedagogical approaches remain, these tools, when used thoughtfully, provide valuable opportunities for learners to practice and develop communicative competence in meaningful ways. Through continued research and thoughtful integration, technology can play an increasingly important role in the evolution of communicative language teaching.

## CONCLUSIONS

The integration of technology into English speaking instruction offers significant opportunities to enhance the development of speaking skills, aligning well with the core principles of Communicative Language Teaching (CLT). The use of gamification, speech recognition, and online collaboration tools provides dynamic and engaging environments for learners, encouraging them to participate actively in speaking tasks, interact with others, and receive real-time feedback. These technological approaches foster fluency, accuracy, and confidence, all of which are key goals of CLT.

Gamification motivates learners by turning language practice into a fun and rewarding experience, thereby increasing engagement and reducing anxiety in speaking. Speech recognition tools offer immediate feedback on pronunciation and fluency, helping learners refine their spoken language and move closer to communicative competence. Meanwhile, online collaboration tools allow for authentic communication, enabling learners to interact in real-life contexts, negotiate meaning, and develop their speaking skills in meaningful ways.

However, challenges such as accessibility, technical issues, and the potential over-reliance on technology must be addressed to ensure the effective integration of these tools in language instruction. Ensuring equitable access to technology, maintaining a balance between face-to-face communication and digital tools, and providing continuous professional development for educators are essential steps in overcoming these challenges.

Ultimately, when thoughtfully integrated, technology serves as a powerful tool that complements the communicative aims of CLT and fosters the development of practical speaking skills in English language learners. Continued research and innovation in educational technologies will further enhance their effectiveness and support educators in creating more engaging, interactive, and communicative learning environments.

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**REFERENCES**

Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: defining" gamification". Proceedings of the 2011 annual conference on Human Factors in Computing Systems, 2425-2428.

Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: defining" gamification". Proceedings of the 2011 annual conference on Human Factors in Computing Systems, 2425-2428.

Fatmawati, F., Sari, M. N., Setianti, Y., Saleh, K., & Pitra, D. H. (2024). Peran Artificial intelligence (AI) dalam Personalisasi Proses Pembelajaran Mahasiswa di Pendidikan Tinggi. Journal on Education, 6(4), 20148-20157.

Fauziningrum, E., Sari, M. N., Rahmani, S. F., Riztya, R., Syafruni, S., & Purba, P. M. (2023). Strategies Used by English Teachers in Teaching Vocabulary. *Journal on Education*, *6*(1), 674-679.

Franchisca, S., Sari, M. N., Nurfitri, N., Nelloe, M. K., Mulyapradana, A., & Fitriani, N. (2024). The Impact of Motivation on Foreign Language Learning: A Longitudinal Study. *Journal on Education*, *6*(2), 11082-11093.

Gee, J. P. (2003). What video games have to teach us about learning and literacy. Computers in entertainment (CIE), 1(1), 20-20.

Gideon, A., Lestari, N. T., Bano, V. O., Sari, M. N., Wicaksono, D., Adriana, N. P., ... & Rizqi, M. (2023). *Metode Penelitian Pendidikan*. Pradina Pustaka.

Hanifah, D. P., Wibowo, S., Wardani, K. D. K. A., Budiyono, A., Pratama, M. P., Sari, M. N., ... & Putri, R. A. R. (2023). *Teori dan Prinsip Pengembangan Media Pembelajaran*. Pradina Pustaka.

Hartono, W. J., Sari, M. N., Rasmita, R., Devi, P. D., & Uktolseja, L. J. (2023). MULTILINGUALISM IN THE ENGLISH CLASSROOM: A LITERATURE REVIEW ON STRATEGIES AND BENEFITS. *Jurnal Review Pendidikan dan Pengajaran (JRPP)*, *6*(4), 2732-2741.

Ilmi, A. R. M., Junaidi, A., Yusnanto, T., Kase, E. B., Safar, M., & Sari, M. N. (2024). Belajar di Era Digital: Memahami Teknologi Pendidikan dan Sumber Belajar Online. *Community Development Journal: Jurnal Pengabdian Masyarakat*, *5*(1), 782-789.

Kamaruddin, I., Sari, M. N., Abdurrahman, A., Istiqomah, I., Herman, H., & Andriani, N. (2024). Evaluasi Kinerja Guru: Model dan Metode dalam Meningkatkan Mutu Pendidikan. *Journal on Education*, *6*(2), 11349-11358.

Littlewood, W. (2004). The task-based approach: Some questions and suggestions. *ELT Journal*, 58(4), 319-326.

Littlewood, W. (2004). *The task-based approach: Some questions and suggestions*. ELT Journal, 58(4), 319-326.

Ningsih, P. E. A., & Sari, M. N. (2021). Are Learning Media Effective in English Online Learning?: The Students' and Teachers' Perceptions. *Tarbawi: Jurnal Ilmu Pendidikan*, *17*(2), 173-183.

Ningsih, P. E. A., & Sari, M. N. (2024). The Role Of Technology In Implementing Kurikulum Merdeka: A Review Of Current Practices. *Edu Research*, *5*(1), 171-183.

Pennington, M. C. (1999). *The power of feedback in language learning: A critical look at its efficacy and its pedagogical implications*. In G. C. C. Thomas (Ed.), Teaching and learning language: Issues in theory and practice (pp. 136–147). Cambridge University Press.

Rusmiyanto, R., Huriati, N., Fitriani, N., Tyas, N. K., Rofi'i, A., & Sari, M. N. (2023). The Role of Artificial Intelligence (AI) In Developing English Language Learner's Communication Skills. *Journal on Education*, *6*(1), 750-757.

Sari, M. N. (2021). SHAPING YOUNG LEARNERS'CHARACTER THROUGH TEACHER QUESTIONING IN ENGLISH CLASSROOM ACTIVITIES. *Pendekar: Jurnal Pendidikan Berkarakter*, *4*(1), 14-19.

Sari, M. N., & Ningsih, P. E. A. (2022). An Analysis Of Students'motivation And Anxiety On Learning English At Sma Negeri 6 Kerinci. *Pendekar: Jurnal Pendidikan Berkarakter*, *5*(3), 181-188.

Sari, M. N., & Ningsih, P. E. A. (2023a). An Analysis Of Students' Anxiety In Learning English At The Eleventh Grade Of SMA Negeri 10 Kerinci. *EDU RESEARCH*, *4*(3), 83-97.

Sari, M. N., & Ningsih, P. E. A. (2023b). Pengajaran Bahasa Inggris Terhadap Siswa Sekolah Dasar dengan Menggunakan Video Animasi. *Jurnal Abdimas Adpi Sosial dan Humaniora*, *4*(3), 628-636.

Sari, M. N., Ningsih, P. E. A., & Novita, A. (2023). An Analysis of English Classroom Interaction Pattern at Eleventh Grade of SMKN 4 Kerinci Based On El Hanafi Theory. *Jurnal Sosial Humaniora Sigli*, *6*(1), 105-115.

Silaban, R. A., Ilahi, A., Effendi, E., Sari, M. N., Putri, R. T. H., Syarifah, H., ... & Sinaga, D. (2024). Gaya Belajar Peserta Didik. *Penerbit Mifandi Mandiri Digital*, *1*(01).

Sitopu, J. W., Pitra, D. H., Muhammadiah, M. U., Nurmiati, A. S., Purba, I. R., & Sari, M. N. (2023). Peningkatan Kualitas Guru: Pelatihan Dan Pengembangan Profesional Dalam Pendidikan. https://repository.unibos.ac.id/xmlui/handle/123456789/9943

Thorne, S. (2008). Mediating technology and the development of second language. *The Modern Language Journal*, 92(2), 221-237.

Warschauer, M. (2000). The role of technology in language learning. *Language Learning & Technology*, 4(1), 23-37.

Warschauer, M. (2004). Technological change and the future of language learning. *Handbook of Research on Educational Communications and Technology*, 361-377.

Wulantari, N. P., Rachman, A., Sari, M. N., Uktolseja, L. J., & Rofi'i, A. (2023). The Role of Gamification In English Language Teaching: A Literature Review. *Journal on Education*, *6*(1), 2847-2856.

Zulfikhar, R., Mustofa, M., Hamidah, E., Sapulete, H., Sitopu, J. W., & Sari, M. N. (2024). Dampak Integrasi Teknologi dalam Pembelajaran Terhadap Prestasi Akademis Mahasiswa Perguruan Tinggi. *Journal on Education*, *6*(4), 18381-18390.