

# **Artificial intelligence for language learning and teaching: A narrative literature study**

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## **ABSTRACT**

The purpose of this study was to examine teachers' beliefs, the factors that influence the use of AI tools, and the advantages, disadvantages, opportunities, and threats of artificial intelligence in language learning and teaching. To accomplish this, the study used a narrative literature review and ATLAS.ti 9 to analyze the data. The results of the study showed that teachers believed that Artificial Intelligence in Language Learning and Teaching (AILLT) included assessing student needs, developing appropriate learning resources, promoting collaboration among resources, providing real-time assessment tools to improve the educational process, and increasing teaching efficiency and effectiveness. Second, AI tools for writing tools, including Paperpal, Quillbot, Jenni AI, ChatGPT, Elicit, as well as in applications to improve speaking skills, such as Speeko and Vocaroo, and "Siri and Say It" for listening and pronunciation skills. Third, factors that may influence students' use of AI-based language learning tools include adaptability, engagement, motivation, autonomy, immediate or direct feedback, accessibility and inclusivity, and teacher and parent support. This research found that AI enhances accessibility, adaptability, personalization, and immediate feedback, but it also has limitations, such as dependence on technology, inadequate human interaction, limited contextual understanding, and algorithmic biases. In addition, AILLT faces potential threats such as quality control, privacy concerns, and job or task displacement. Narrative literature studies provide theoretical insights, and it is expected that future studies at different levels of language learning will incorporate empirical evidence from experimental and case study-based research.

**Keywords:** *Artificial intelligence; Chatbot; Language learning; Instant feedback; Quillbot*

## 1. Introduction

Artificial intelligence (AI) has importance and promise in the development of language learning and teaching (Luan et al., 2020). AI has had a substantial impact on language learning and teaching (Liu et al., 2024), with a wide range of applications such as natural language processing (Chen et al., 2022; Yang, 2024), data-driven learning, automated writing evaluation, computerized dynamic assessment, intelligent tutoring systems, automatic speech recognition, and chatbots (Son et al., 2023). AI technologies have particularly improved language teaching and learning in pedagogy (Ali, 2020). Although the full potential of AI in language learning applications is yet to be realized and many applications still rely on predetermined algorithms (Pikhart, 2020), AI chatbots have been recognized as a promising tool for language learning, offering the possibility of anytime, anywhere learning, and enhancing learner confidence (Belda-Medina & Calvo-Ferrer, 2022; Hasyim et al., 2024; Kohnke et al., 2023).

Artificial intelligence (AI) has been increasingly integrated into language learning and teaching (Huang et al., 2023), transforming the way languages are acquired and taught. Integrating AI into existing language curricula is crucial and urgent for those who teach learners AI and the native digital generation (Dai et al., 2023; Ketamo et al., 2019). Artificial intelligence language learning (AILLT) represents a recent innovation in the field of education and is characterized as a novel pedagogical tool (An et al., 2023). This study makes a substantial contribution to the existing body of knowledge by presenting the concepts, frameworks, and literature. Considering the rapid advancement of technology in an educational context, particularly in language learning and teaching is imperative (Luan et al., 2020). Conducting this literature review is crucial and urgent to ensure that we remain informed of the latest advancements and trends.

According to educators, artificial intelligence can be a valuable tool in language learning, as it offers personalized, adaptive, and engaging learning experiences (Shumanov & Johnson, 2021). AI-powered language learning platforms can provide immediate feedback (Mohamed, 2023), correct pronunciation (Hoang et al., 2023), and facilitate practice in a safe environment. Moreover, they can offer multimedia content, which makes the learning process more interactive and enjoyable (Baabdullah et al., 2022).

However, educators recognize that AI should be utilized as a complement to traditional teaching methods, rather than as a substitute for human interaction and guidance. They believed that the fusion of AI and human expertise can create a more comprehensive and effective learning environment. This study aimed to assist and offer insights to language teachers in integrating AI into the language learning curriculum, syllabus, and materials, taking into account learners' needs and context.

The initiative for this study was prompted by the scarcity of empirical evidence and dearth of experience, particularly in the Indonesian context. Furthermore, the proposed integration of artificial intelligence into the English language teaching (ELT) curriculum aligns with the national Indonesian curriculum, "*Kurikulum Merdeka*," which emphasizes personalized learning, interaction, collaboration, and real-time assessment using AI tools. This study aimed to address these deficiencies by posing and answering the following questions:

1. How do teachers believe in using AI for language learning?
2. What factors affect students' use of AI in learning languages?
3. What are Artificial language applications (ALAs)?
4. How is SWOT in language learning?

## **2. Literature review**

### *2.1. Understanding artificial intelligence (AI)*

According to Russell and Norvig (2016), AI can be defined from four perspectives: human thinking, human rationally, rationally acting, and acting rationally (p.21). The first perspective, human thinking, involves developing AI that mirrors human cognitive processes, including comprehending how humans think, reason, learn, and resolve issues, and subsequently attempting to replicate these processes in machines. The second perspective, human rationally, emphasizes the development of AI systems that operate based on principles of formal logic and reasoning. The third perspective, rational acting, involves the creation of AI systems that emulate human behavior and actions, which differs from the former two viewpoints in that it focuses on external rather than internal cognitive processes. The final perspective, acting rationally, defines intelligence in terms of achieving goals or effectively solving problems. This perspective prioritizes designing AI systems that make decisions and take actions that lead to desirable outcomes, rather than concentrating on how closely AI systems resemble humans.

Artificial intelligence (AI) is an exceptionally specialized discipline that has achieved remarkable progress over the past six decades by integrating principles from psychology, linguistics, mathematics, and computer science (Sokolov, 2019). The theoretical foundations of AI include knowledge representation, reasoning, behavior modeling, and data mining (Sokolov, 2019).

According to Yashchenko (2014), the bionic approach, which emphasizes the design and operation of intelligent systems based on neural-like networks, is a fundamental principle of the AI theory. Colombano (2000) further asserted that the Turing test, which evaluates a computer's ability to engage in a conversation indistinguishable from that of a human, plays a significant role in the progress of AI. Problem solving through knowledge representation and manipulation has been a central focus, resulting in the emergence of expert and knowledge-based systems.

The field of artificial intelligence (AI) is a branch of computer science and engineering that aims to develop intelligent behavior in machines and computer systems.

This involves utilizing machine learning algorithms and technologies to enable machines to perform tasks that typically require human intelligence, such as logical reasoning, learning, and problem-solving (Khaleel et al., 2023). The ultimate objective of AI is to enhance the efficiency and accuracy of various processes, thereby making them more autonomous and semi-autonomous. As AI continues to progress, it is anticipated to play an increasingly significant role in various industries and sectors, including healthcare, finance, transportation, and manufacturing (Jan et al., 2023).

AI has the potential to significantly enhance language acquisition and teaching by providing tailored, adaptable, and efficient learning experiences that enable students to attain language-related objectives. Nevertheless, it is imperative to address ethical considerations such as privacy, bias, and inclusivity to ensure that AI technologies foster the equitable development of all learners, as previously explored. AI has shown great potential for simulating human conversations through voice commands and has been widely integrated into the service industry. This integration has led to improved customer satisfaction and streamlined business operations as well as more efficient and convenient interactions between humans and machines (Zhang et al., 2023). The impact of AI in various fields, including education, is notable. Mijwil et al. (2022) suggest that AI technology has the potential to significantly enhance language learning experiences. As AI technology continues to progress, it is anticipated to play a prominent role in the future of language education.

Briefly, AI is human intelligence generated through the use of machines or computers, guided by predetermined programs or instructions to achieve particular objectives. Practical application of AI has been shown to increase human productivity and provide the capability to assess outcomes through immediate feedback.

## *2.2. Artificial intelligence language learning and teaching (AILLT)*

AI-powered tools in the realm of foreign language acquisition constitute a subset of computer-assisted language learning. Li (2020) explored Liulishuo's characteristics by applying the tenets of CALL, MALL, and AI. CALL pedagogy encompasses second-language input exposure, interaction, and linguistic production. The principles of MALL include equal access, adaptable use, and tolerance for error.

Liulishuo's IELTS curriculum is designed for practical use and includes pre-planned corrections for incorrect answers. It also fulfils the criteria for adaptable use, as each task takes approximately 15 min to complete. The IELTS Liulishuo application, which fuses AI technology with test preparation, adheres to CALL pedagogy and MALL principles, making it a cost-effective option for English as a Foreign Language (EFL) learning. However, the flexibility of the app is limited, and students can access only four modules daily (Li, 2020).

In a study, An et al. (2023) explored the inclinations of both junior and senior high school students regarding the integration of Artificial Intelligence in language learning (AILL) into their scholastic endeavours. Furthermore, they delved into the intricate

dynamics of the technological, social, and motivational factors that shape students' fascination with this subject.

The integration of artificial intelligence (AI) into language education is a growing trend that has gained significant traction in recent times. As per Son et al's. (2023) research paper, there are numerous advantages to incorporating AI technology in language learning as well as challenges and future prospects in this field. AI has demonstrated considerable potential for enhancing teaching methods, particularly language instruction and acquisition. According to Ali's research conducted in 2020, the incorporation of AI technology has led to improvements in the efficiency and effectiveness of language learning processes. By harnessing AI's adaptive learning algorithms, personalized learning experiences, and natural language processing capabilities, students can benefit from more targeted and engaging language instruction, resulting in improved comprehension, retention, and practical application of learned languages.

Haristiani (2019) highlighted the potential of chatbots to serve as valuable resources for language learning due to their capacity to offer instant feedback, tailor learning experiences, and facilitate discussions on a broad range of topics. Chatbots can be effective tools for language acquisition by enabling learners to refine their language abilities in relaxed settings and familiarize themselves with authentic language usage. However, to achieve optimal results using chatbots in language learning, it is crucial to verify whether the content provided by it is accurate, diverse, and engaging.

AI has immense potential to transform education by offering a wide range of captivating and diverse learning resources. As Negrila (2023) highlighted, AI can facilitate personalized learning experiences that cater to the specific requirements and learning styles of individual students. This aligns with the fundamental principles of education, which emphasize the importance of customizing education to suit each learner's unique abilities and needs. Through the use of AI technology, educators can develop innovative teaching strategies and materials to improve student engagement and understanding, resulting in a more inclusive and productive learning environment.

Artificial intelligence (AI) holds significant potential for advancing the quality and efficacy of foreign language instruction, as indicated by Yanhua (2020). With the implementation of AI-based tools and platforms, educators can deliver personalized learning experiences, tailored content, and immediate feedback, all of which can considerably enhance students' language acquisition and retention. AI can facilitate language practice through speech recognition, translation, and chatbot interactions, thereby making the learning process more engaging and productive. In sum, the integration of AI into foreign language education can transform the way we learn and teach languages. In conclusion, AI has the potential to significantly improve language education by providing personalized learning experiences, adaptable content, and immediate feedback through speech recognition, translation, and chatbot interactions.

### 3. Method

This research was carried out through the use of a narrative literature review (NLR) in order to address the questions posed. This review is a comprehensive examination of the available literature on a particular topic, namely, artificial intelligence for language learning and teaching. Unlike systematic reviews, which employ predetermined criteria for the inclusion and exclusion of studies, the NLR provides a qualitative summary and analysis of the literature. The following steps were generally followed during the NLR.

The initial phase involved establishing a well-defined research question or area of focus that delineated the scope of the literature search and review. Researchers undertook extensive searches across myriad databases, periodicals, and other resources to identify pertinent studies. We used an array of search terms, including keywords such as "artificial intelligence" and "AI for teaching and language learning," in conjunction with Boolean operators to guarantee comprehensive and systematic searches. In this instance, we concentrated on the literature published between 2014 and 2024 to draw conclusions about AI-related issues within the last ten years. Our searches encompassed a variety of sources, such as journals, books, and conference papers that were published and indexed in Google Scholar, Science Direct, Scopus, Springer, Taylor and Francis databases.

Following a comprehensive search for potentially pertinent studies, the researchers conducted an initial evaluation of the titles and abstracts to ascertain their relevance to the research question. In this study, we identified 200 articles relevant to AI. We subsequently scrutinized the full text of the selected studies using predetermined criteria, including AI for language learning, chatbots for language learning, Chat GPT for English for foreign languages, and perceptions of AI in language learning.

Furthermore, regarding the research questions, the researchers thoroughly extracted 50 studies, including abstracts, findings, methodologies, and conclusions. Upon completion of the data synthesis, researchers analyze and interpret the findings in relation to the research question or topic. In our study, we used the ATLAS.ti 9 application to systematically analyze and categorize the collected data. Finally, conclusions were drawn based on the resulting data.

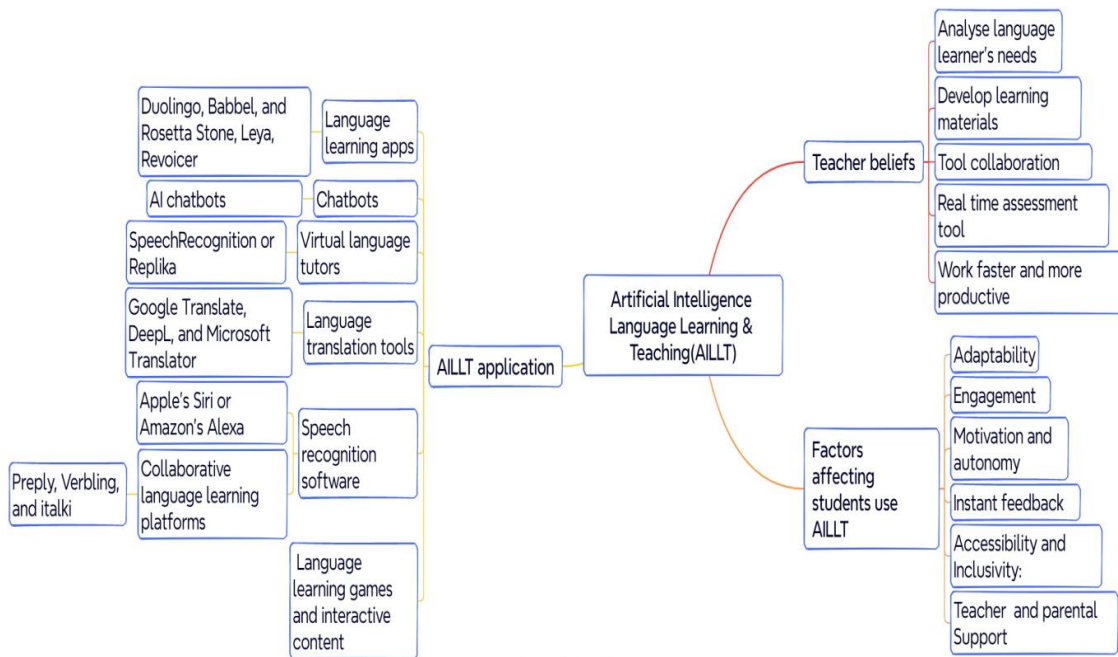
### 4. Findings and discussion

First, this research discovered that AILLT encompasses five critical components, as illustrated in Figures 1 and 2. Educators need to evaluate student requirements (Zhai & Wibowo, 2023), develop appropriate learning resources (Chen et al., 2020), promote cooperation between resources (Vinchon et al., 2023), and supply real-time assessment tools (Delgado et al., 2020) to improve the educational process. These elements lead to increased teaching efficiency and efficacy (Ali, 2018).

Second, numerous factors can influence students' utilization of AI-based language learning tools, including adaptability (Delgado et al., 2020), engagement (Bachiri & Mouncif, 2022), motivation and autonomy (Shafiee Rad, 2024), (Yang et al., 2022),

instant or direct feedback (De la Vall & Araya, 2023; Li, 2020), accessibility and inclusivity (Gupta & Chen, 2022), and teacher and parental support (Baker, 2021).

Third, artificial intelligence (AI) is utilized in language learning and writing tools, including Paperpal, Quillbot, and Jenni AI (Bender, 2024). Additionally, AI has been integrated into chat applications, such as Chat GPT, and Elicit (Butarbutar, 2021; Shafiee Rad, 2024). Furthermore, there are applications available to enhance speaking skills, such as Speeko and Vocaroo (Butarbutar, 2022; Shafiee, 2024). Furthermore, applications such as "Siri and Say It" are used to improve listening and pronunciation abilities (Alharthi, 2024; Butarbutar, 2024).



**Figure 1.** AILLT contribution theoretically

The results of the SWOT analysis of AILLT are shown in Figure 2. The research revealed that AI strength in AILLT comprises accessibility, adaptability, personalization, and immediate feedback. However, it also has constraints such as dependence on technology (DoT) (Butarbutar et al., 2023), inadequate human interaction, limited contextual understanding, and algorithmic biases. Moreover, AILLT faces potential dangers, such as quality control, privacy concerns, and job or task displacement. Notwithstanding these flaws and hazards, AILLT offers favorable prospects, including

lifelong learning, innovative teaching methods, improved learning outcomes, and global reach.



**Figure 2.** The analysis SWOT of AILLT

## 5. Discussion

### 5.1. Teachers' belief of AILLT

The teachers in this study generally had a favorable perspective on the role of AI in language learning. They believed that AI could efficiently improve the learning process by delivering personalized learning experiences, providing instant feedback, and creating interactive content. AI-powered language learning tools can adapt to individual learning paces and styles, making the process more effective and efficient. AI can also help teachers by automating tasks such as grading exercises and assessments, thus freeing time for more personalized teaching and addressing specific student needs. AI can offer teachers valuable insight into student progress, enabling them to adjust their teaching methods accordingly. This study is relevant to Novawan et al. (2024), who suggested that teachers perceive AI as positively impacting the provision and development of learning



materials and assessments (Butarbutar et al., 2023). However, they emphasized that AI-assisted learning should consider ethics and policies on teacher professionalism.

Based on our review, we agree with Ali's (2020) analysis that AI can enhance language teaching and learning. Son et al. (2023) also shared this viewpoint, stressing the need for judicious application of AI in language education. Moreover, Eager and Brunton (2023) highlighted the potential of AI in higher education, while Wei (2023) offered evidence of its favorable impact on English learning achievement, motivation, and self-regulated learning (Nur & Butarbutar, 2022).

This study suggests that educators' perspectives are vital for the incorporation of AI technologies in education. If teachers view AI as a useful resource for enhancing teaching efficiency and student learning outcomes, they are more likely to adopt AI technology in their classrooms. Therefore, teachers strive to improve their technological skills to adapt to and integrate AI into language and learning teaching contexts to meet their students' needs. Moreover, according to their observations, the teachers noted that the integration of AILLT was smoother and assured when they were familiar with the characteristics of their students. We agree with the findings of Choi et al. (2023), who proposed that educators' decisions to incorporate AI into their teaching methods are influenced by their pedagogical values, level of trust, and acceptance of AI as a useful tool for learning.

In contrast to the findings of Yang's (2024) research, we assert that English as a Foreign Language (EFL) educators ought not to collaborate with AI technology in their instruction. In our opinion, collaboration should be grounded in shared comprehension of the following five elements: face-to-face interaction (whether in-person or virtual), personal accountability, group dynamics, interpersonal skills, and positive interdependencies. These factors demonstrate that authentic collaboration can only transpire between humans (Butarbutar, 2024). We do not endorse the idea of AI and EFL teachers collaborating, as AI tools cannot provide these aspects, instead of integration.

## *5.2. Factors affecting students use AILL*

This study found that some factors affecting students' use of AILL significantly altered how the languages were learned. The first is adaptability: to remain current, students must become proficient in utilizing these technologies, as they are an integral component of the contemporary AI era. These resources can be tailored to match the learner's unique style and pace. For instance, they can modify the difficulty level of exercises or provide personalized suggestions based on the learners' progress and preferences. According to Wang et al. (2023), who emphasized that incorporating AI-based technologies into higher education enhances instruction and improves students' academic performance and outcomes, adaptability is a crucial component for success in language learning.

The second key element is engagement, which is essential for forming students' experiences with artificial language applications (ALAs). This aspect significantly affects

how technological instruction is connected to individual students. Several factors have been identified as crucial for student engagement in ALAs, including interactive and immersive methods. For example, AI-driven chatbots and virtual assistants can simulate conversations in a target language by providing instant feedback and corrections, thus allowing students to practice speaking, listening, and comprehension skills.

Additionally, the use of interactive features, such as gamification, multimedia content, and real-time feedback, enhances student engagement in ALAs or AILLT. These features motivate and engage learners throughout their language learning journey. Furthermore, AI tools that provide direct feedback and accessibility encourage students to take control of their learning processes, fostering autonomy and motivation. These tools enable learners to correct mistakes promptly and reinforce their learning in real time, thereby enhancing their overall learning experience. This research endorses the findings of (Ebadi & Amini, 2022), who conducted an empirical and qualitative analysis to determine the effectiveness of chatbots in improving students' motivation and self-assurance in English language learning. In accordance with Taskiran et al. (2024), our study demonstrated that automated feedback plays a significant role in the realm of writing pedagogy. Furthermore, the integration of automated feedback with AI tools, as suggested by our research, can be facilitated by both teachers and parents. This suggests that automated feedback can be utilized to remotely enhance the learning experience of individuals studying English as a second language or foreign language.

### 5.3. Artificial language applications (ALAs)

This study delves into the realm of AI-driven language learning applications. These programs incorporate adaptive learning algorithms that modify lessons according to each student's unique progress and preferences. These applications frequently integrate speech recognition technology to help students refine their pronunciation and develop conversational skills. Additionally, AI tools can facilitate conversations in multiple languages, allowing learners to enhance their speaking and listening abilities through role-playing exercises or real-time feedback on their grammar and vocabulary.

The study found few AI-powered language learning platforms, such as Preply, Verbling, and Italki, that connect learners with native speaking tutors or language exchange partners. These platforms use AI algorithms to match learners with suitable tutors based on their needs and preferences, including natural language processing, data-driven learning, automated writing evaluation, computerized dynamic assessment, intelligent tutoring systems, automatic speech recognition, and chatbots (Son et al., 2023). In this vein, our study is relevant to Jaleniauskiene et al. (2023), who stated that AI tool technologies are used to enhance various aspects of language learning such as acquisition, motivation, performance, vocabulary, instruction, feedback, and impact. Moreover, we strongly agree with the findings of (Kim & Su, 2024), who suggested that incorporating an AI chatbot can help alleviate Korean students' anxiety and enhance their inclination to communicate. Accordingly, as suggested by Mijwil et al. (2022), it is widely

acknowledged that AI has become an essential component in the realm of English language instruction to enhance e-learning. In particular, AI is increasingly being utilized in language acquisition through voice synthesizers and word-processing programs, with a specific focus on spelling programs.

Similarly, the most successful students in the study utilized artificial intelligence-powered translation tools, such as Google Translate, DeepL, and Microsoft Translator, which enabled them to comprehend written and spoken content in their target language. In addition, these tools facilitate language exchange, allowing learners to communicate more effectively with native speakers. The use of AI-powered translation tools played a significant role in students' language learning success as they provided instant translations and improved comprehension.

In terms of AI speech recognition technology, such as that used in Apple's Siri or Amazon's Alexa, this study reported that these tools can help learners practice their pronunciation and listening skills by transcribing spoken words into the text. This can be particularly helpful for learners who struggle to understand native speakers or who need extra practice in their own speaking abilities. This study agrees with Dizon and Tang (2020), who asserted that Alexa AI can autonomously assist language learners in improving their speaking and listening abilities. Their investigation emphasized that language learners feel anxiety in external formal situations, which is a potential concern for language learners.

#### *5.4. The SWOT of AILLT*

This section examines the benefits and constraints of AI in transforming language learning into pedagogical purposes. The results of the SWOT analysis of AILLT are shown in Figure 2. The research revealed that AILLT strength comprises accessibility, adaptability, personalization, and immediate feedback. However, it also has constraints such as dependence on technology (DoT) (Butarbutar et al., 2023), inadequate human interaction, limited contextual understanding, and algorithmic biases. Moreover, AILLT faces potential dangers such as quality control, privacy concerns, technological dependence, and job or task displacement. Notwithstanding these flaws and hazards, AILLT offers favorable prospects, including lifelong learning, innovative teaching methods, improved learning outcomes, and global reach.

The impact of AI permeates various segments of society including individuals, groups, and communities. From a personal standpoint, AI enables learners to take charge of their education, enhance their learning processes, and accomplish their objectives regarding their individual learning styles. AI technology enables personalized learning experiences that cater to learners' diverse needs and competency levels. With the assistance of AI-driven systems, the content, pace, and complexity of learning materials can be customized by analyzing individual learning patterns and preferences to optimize learning outcomes. From a group and community perspective, AI-powered language learning technologies (AILLT) can foster collaborative learning environments such as

English clubs that can be established virtually (Ardiningtyas et al., 2023; Sauhenda & Butarbutar, 2023; Siahpoosh & Mahdavi, 2024), whose members hail from diverse countries worldwide.

The research findings of Zhai and Wibowo (2023) corroborate the results of this study, which indicate that incorporating AI in language learning has yielded positive outcomes. AI has the potential to enhance the quality and frequency of student engagement in language learning and teaching by measuring their level of involvement in each session and activity. Student engagement is a vital aspect of language learning success as it reflects the progress and improvement of students through their participation in various activities. AI tools can facilitate access to language content and support students' involvement in classroom activities such as gamification and chatbots to increase their engagement levels. This study underscores the significance of AI in language learning and teaching, highlighting its potential to foster greater student engagement and enhance overall learning experience.

Teachers acknowledge the importance of achieving a balance between AI-facilitated language learning and genuine human interaction. They understand that language acquisition involves more than just linguistic proficiency and that cultural comprehension and communication skills are also essential. Consequently, educators maintain that face-to-face interactions with native speakers and fellow learners (Butarbutar & Leba, 2023), as well as conventional pedagogical techniques, should not be entirely replaced by artificial intelligence. While AI is viewed as a valuable tool for language learning, educators emphasize the crucial role of human interaction and recommend a harmonious approach to education that integrates both AI-based and human-centered methods.

## 6. Conclusion

Artificial intelligence (AI) has the potential to revolutionize education by enhancing the learning experience for students. To ensure that the integration of AI into education is effective, educators must consider their beliefs and the various factors that impact students, while adhering to ethical principles. By using AI resources in a responsible way, educators can create engaging, comprehensive, and transformative learning opportunities for their students. However, when AI is used without ethical considerations, it can lead to widespread dishonesty among students, which is counterproductive to language learning goals and should be avoided.

It is believed that AI serves as a co-pilot to meet human needs. Humans assume the role of pilots and are responsible for determining which AI tools to use based on their individual needs and priorities. The acquisition of digital literacy, prompting skills, technology literacy, and information and communication technology (ICT) skills is critical to the effective use of AI by humans.

The integration of AI technology into Indonesia's national curriculum, known as *Kurikulum Merdeka*, is expected to significantly improve the quality and effectiveness of

education. Therefore, it is important to consider this integration. The core components of this curriculum are personalized learning, predictive analytics, collaboration, real-time assessment, and interactive learning content. The implementation of AI in education facilitates a more adaptable and responsive system, ultimately equipping future generations with the skills necessary to meet the challenges of the future. Our study, a narrative literature review, provides theoretical insights, and we anticipate that future studies at different levels of language learning will include empirical evidence derived from experimental and case study-based research.

In order to improve language quality and clarity, university English as a Foreign Language (EFL) teachers should be adaptable, innovative, and seamlessly integrated into the teaching process. Despite facing various challenges and obstacles, EFL teachers need to continuously use their strengths and potentials to promote and enhance their roles as teachers and content creators. This study suggests that instructors should utilize the latest technological advances in language learning and teaching when teaching students. By doing so, teachers can provide dynamic and flexible instruction that remains relevant. Therefore, lifelong learning is essential for both educators and students as technology continues to advance and evolve. Ultimately, this conclusion recommends that the more educators adapt to the latest technology, the more adaptable and dynamic their language teaching methods will be.

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