The Use of Artificial Intelligence (AI): Chatgpt and Mastery of English-Speaking Skills

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DOI: https://dx.doi.org/10.47772/IJRISS.2025.90400465

Received: 15 April 2025; Accepted: 19 April 2025; Published: 22 May 2025

ABSTRACT

This study aims to establish a conceptual definition for two main variables: the use of artificial intelligence (AI): ChatGPT and the mastery of English-speaking skills. This study uses a systematic literature method by analysing 42 articles obtained from various academic search engines such as Google Scholar, Education Resources Information Center (ERIC), ResearchGate, and others. Keywords such as artificial intelligence use, ChatGPT, and speaking skills were used to obtain relevant articles. For analysis purposes, thematic analysis was conducted using a matrix table and graphic management to identify patterns and relationships in the reviewed literature. The findings show that artificial intelligence (ChatGPT) consists of four main dimensions, while English speaking skills have only one dimension, namely implications for speaking skills. The results of this study provide a conceptual foundation that can serve as a reference for future research exploring the use of artificial intelligence in the teaching and learning of English-speaking skills and addressing existing research gaps in this field.

Keywords: Artificial Intelligence (AI), ChatGPT, English Speaking Skills, Pronunciation Accuracy, Speaking Fluency

INTRODUCTION

Artificial Intelligence (AI) is a technology that is increasingly gaining attention in exploring its potential across various industries, including in the field of education. AI has developed rapidly and is now integrated into various sectors (Devagiri, 2022). In Malaysia, the National Digital Education Policy 2023–2025 emphasizes the role of AI in increasing students' engagement and diversifying teaching and learning approaches (Ministry of Education Malaysia, 2021).

Recognizing the potential of AI in education, the Director-General of Education Malaysia stated in his speech at the opening of the 2024/2025 school session that "The use of AI assists teachers to design quality teaching and learning that aligns with the needs and interests of today's students" (Azman, 2024). Similarly, the Deputy Minister of Education emphasizes that the ministry is committed to empowering various initiatives, including integrating AI in education with planned applications not only in teaching and learning but also in school management (Sin, 2025).

One area that can greatly benefit from AI is English language learning, especially in improving students' speaking skills. Many secondary school students in Malaysia face difficulties in fluency and pronunciation in English due to from limited exposure and low confidence (Ahmad Azlan & Kaur, 2023). This challenge becomes more apparent when students lack interest, motivation, and confidence to actively use the language, making it difficult for teachers to engage them in speaking activities (Ghafar, 2023).

To overcome this issue, AI such as Chat Generative Pre-Trained Transformer (ChatGPT) is gaining attention as an innovative language teaching tool. Since its launch, ChatGPT has grown rapidly with 1 million users in five days and reaching 300 million weekly active users by December 2024, sending more than 1 billion messages daily, reflecting its integration into personal and professional life (Burmagina, 2025). ChatGPT offers various features such as interactive training and the provision of meaningful language input, which can

help students improve their speaking skills. With the assistance of ChatGPT, language teachers can create realistic dialogues, news articles, and reading passages that provide students with more engaging and meaningful language input (Baskara & Mukarto, 2023).

Therefore, in line with Malaysia's focus on AI-based education and the challenges in mastering English-speaking skills, this study was conducted to explore how ChatGPT can be used as a teaching aid to enhance secondary school students' speaking skills. The results of this study are expected to contribute to the development of literature on AI-based learning in Malaysian education.

LITERATURE REVIEW

The Use of AI in Education

The use of Artificial Intelligence (AI) in education has expanded rapidly in recent years, with growing recognition of its transformative impact on both teaching and learning. According to Edtech (2020), AI plays a pivotal role across general and higher education settings. It offers a broad spectrum of applications that enhance instructional delivery and student engagement, benefiting both educators and learners. Supporting this view, Slimi (2023) suggests that AI will play a critical role in shaping the future of higher education by enabling more personalised instructional methods and enriching the overall learning experience.

Crompton and Burke (2023), in their systematic review, reported a substantial increase in the adoption of AI in higher education over recent years. Their findings indicate that AI technologies are being widely used for purposes such as assessment, predictive analytics, intelligent tutoring systems, AI assistants, and learning management. These applications contribute to instructional effectiveness by enabling educators to provide personalised feedback, tailor instruction to individual learner needs, and implement more accurate and targeted assessment strategies.

Among the various AI tools employed in educational contexts, ChatGPT has emerged as a widely recognised platform. A study by Yang et al. (2024) found that ChatGPT is used extensively due to its ability to offer instant feedback, raise students' language awareness, and create more engaging and interactive learning environments. The study also revealed that students use ChatGPT to simulate conversations, receive immediate corrections, and improve their language performance through guided speaking practice.

English-Speaking Skills

Speaking skills in English are a core component of language mastery and often pose challenges for non-native learners. Research has shown that the effectiveness of teaching speaking skills is shaped by multiple factors, including instructional approaches, technological integration, and students' confidence in oral communication.

Phoeun and Sengsri (2021) emphasized that the Flipped Classroom and Communicative Language Teaching (CLT) approaches play an important role in developing speaking proficiency. These methods allow students to access learning materials online before attending in-person sessions, thus providing more time in class for interactive activities such as discussions, pair work, games, and role-plays. By focusing on meaning-based learning, these approaches are particularly effective in fostering fluency and boosting learners' confidence in speaking.

Technology has also proven instrumental in supporting the development of speaking skills. Nair and Yunus (2021) highlighted that digital storytelling not only improves fluency and pronunciation but also encourages students to speak more confidently in interactive settings. In a similar vein, Santhanasamy and Yunus (2022) found that structured activities such as debates, drama, and simulations help students overcome shyness and provide a safe environment for oral practice.

The use of social media and online platforms further contributes to oral language development. Saed et al. (2021) reported that integrating WhatsApp into language learning helped improve students' vocabulary and oral communication skills by creating a more relaxed and informal learning context. Similarly, Khan et al.

(2021) observed that YouTube supported the development of listening and speaking skills by exposing students to authentic audio-visual materials, although they also noted challenges related to the availability of appropriate content and interruptions from advertisements.

In addition, a study by Shin and Yunus (2021) found that using the Flipgrid application in language learning helps boost students' confidence in speaking. The app allows students to record and review their own speech, giving them opportunities to continuously improve their pronunciation and fluency. Furthermore, research by Santhanasamy and Yunus (2022) showed that the flipped learning approach offers students more opportunities to practise speaking skills, as it enables them to learn at their own pace and participate more actively in class discussions.

Overall, previous studies support the view that interactive teaching strategies, technological tools, and digital platforms can significantly enhance students' English-speaking skills. However, more research is needed to explore the long-term impact of these tools, particularly in the context of secondary and primary education.

ChatGPT and Language Learning

The use of ChatGPT in language learning has become an increasingly prominent topic of research. A study by Xiao and Zhi (2023) explored the experiences and perceptions of English as a Foreign Language (EFL) students regarding the use of ChatGPT in completing language-related tasks. The findings indicated that ChatGPT functions as a valuable learning companion, helping students to complete tasks by providing immediate feedback and a personalised learning experience. Similarly, Karataş et al. (2024), in a study involving foreign language learners in Turkey, found that ChatGPT had a positive impact on students' learning experiences, particularly in writing, grammar, and vocabulary acquisition. Students also reported increased motivation and engagement when using ChatGPT in a variety of learning activities.

In the context of speaking skills, ChatGPT has also shown potential to improve students' pronunciation, fluency, and overall speaking performance. Yang et al. (2024) found that students used ChatGPT as an interactive platform to simulate conversations, receive real-time feedback, and correct language errors during speaking tasks. Xiao and Zhi (2023) further observed that students critically evaluated the quality of ChatGPT's responses and demonstrated the ability to adjust their prompts to optimise learning outcomes. However, a study by Karataş et al. (2023) noted that while ChatGPT showed clear benefits in writing-related tasks, its impact on speaking skills was more limited. These mixed findings suggest a need for further research to thoroughly examine ChatGPT's effectiveness in supporting various aspects of speaking skill development.

Challenges and Limitations of AI in Language Learning

The use of Artificial Intelligence (AI) in education has expanded rapidly, offering numerous benefits for both students and educators. However, several challenges and limitations must be considered, particularly in relation to ethical concerns, data privacy, algorithmic bias, and student overreliance on technology, which may negatively impact critical thinking and learning autonomy.

One of the primary concerns in implementing AI in education is the issue of student data privacy and security. Neel et al. (2023) emphasize that data privacy is increasingly critical due to the vast storage of information in large-scale public digital repositories. This aligns with the views of Ikwuanusi et al. (2023), who explain that AI systems rely on extensive datasets for training and optimization, which may contain sensitive user information. Without robust data governance, this information is at risk of misuse by third parties, commercial exploitation, or unauthorized sharing. Nevertheless, Boateng (2025) argues that adaptive learning technologies powered by AI can provide significant advantages by analysing student data to offer personalised content. These systems can also enhance accessibility, particularly for learners with disabilities and for students learning English as a second language.

Bias within AI models presents another challenge that can affect the effectiveness of learning. Jackson (2021) highlights that although AI presents many advantages, it remains vulnerable to algorithmic bias—systematic and recurring errors in computer systems that can result in inequality and discrimination based on protected

characteristics such as race and gender. For instance, Bender et al. (2021) found that Natural Language Processing (NLP) models like ChatGPT tend to reflect the biases present in their training data, which may lead to inaccurate responses for users from different cultural backgrounds.

The widespread use of AI in education has also raised concerns about students' dependency on this technology, which could undermine critical thinking and independent learning. Although AI-based assessment tools provide more accurate feedback, Seo et al. (2021) point out that excessive reliance on such tools may compromise the authenticity of student performance evaluations. In the context of language learning, Yatri et al. (2023) note that despite the advantages of AI, challenges remain—particularly the risk of overreliance and the need to verify the accuracy of AI-generated content. Both students and teachers acknowledge the benefits of AI, while also recognising its limitations, especially in tasks that require human understanding, such as the interpretation of complex linguistic structures.

Recent Empirical Studies on AI in Language Teaching

The integration of artificial intelligence (AI) technology into the field of education has grown significantly, with notable impacts particularly in teaching and learning practices. Within the context of language education, the application of AI as a digital instructional tool has demonstrated its potential in enhancing language acquisition. A growing body of empirical research has been conducted to evaluate the use of AI tools, such as ChatGPT, in language learning.

Xiao and Zhi (2023) conducted a study on the perceptions and experiences of students in China regarding the use of ChatGPT in learning English as a Foreign Language (EFL). The findings revealed a positive outlook on the use of ChatGPT, as students benefited from immediate feedback and personalised learning experiences. Similarly, Karataş et al. (2023) examined the impact of ChatGPT on foreign language learners and reported positive outcomes, particularly in writing, grammar, and vocabulary development, as well as increased student motivation. The findings of this study offer useful insights for educators and researchers in designing effective teaching strategies and curriculum planning. Yang et al. (2024) explored the role of AI in developing speaking skills and found improvements in students' spoken English, as evidenced by increased speaking scores and the length of responses. The study also highlighted the potential of AI-supported practice in raising students' language awareness.

Overall, these studies suggest that AI technologies such as ChatGPT hold considerable promise for enhancing students' speaking proficiency and fluency. However, further research is required, particularly within the Malaysian context and at the secondary and primary school levels. As noted by Degni (2024), existing research has largely focused on higher education, while studies on the application of AI in lower educational levels remain limited. Therefore, more comprehensive research encompassing various educational settings is essential to determine the most effective uses of AI and to explore its potential across different learning contexts within the national education system.

METHODOLOGY

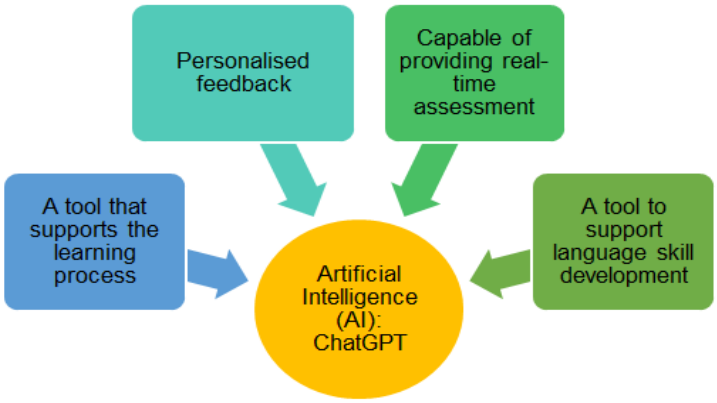
This study adopts a meta-analysis approach, as outlined by Cooper (2017), to analyse and synthesise findings from previous research on the use of Artificial Intelligence (AI), particularly ChatGPT, and the mastery of English-speaking skills. A total of 24 articles were analysed to construct a conceptual definition of AI in education, while 21 articles were examined to define English-speaking skills. All articles were sourced from reputable academic databases, including Google Scholar, Scopus, ERIC, and Emerald, to ensure the relevance and quality of the literature reviewed. Keywords such as "Artificial Intelligence in Education," "ChatGPT in Language Learning," "English Speaking Skills," "Fluency and Pronunciation," and "AI-assisted Language Learning" were used during the literature search process. Thematic analysis was applied to each article using a matrix table to categorise findings according to key themes, including the role of AI in education, its impact on speaking skills, and the challenges associated with its implementation. The conceptual definitions were summarised and visualised through graphical management tools to identify relationships between key concepts. This approach is not only established a conceptual foundation for understanding the integration of AI in language instruction and the development of speaking proficiency but also identified existing research gaps and suggested future research directions.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume IX Issue IV April 2025

FINDINGS AND DISCUSSION

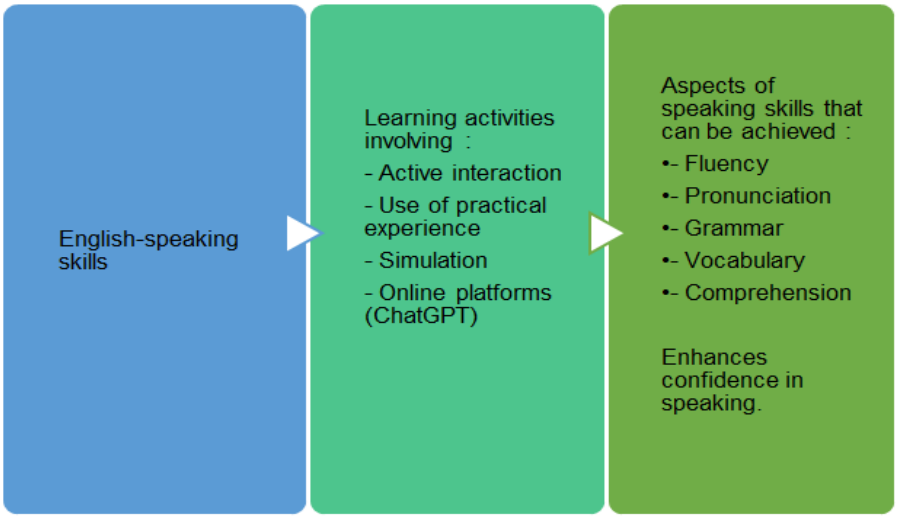
The analysis reveals that Artificial Intelligence (AI) and English-speaking skills can be conceptually defined based on previous studies. As illustrated in Figure 1, the construct of AI is defined by Dewatri et al. (2023) as a tool capable of providing immediate feedback and facilitating adaptive learning experiences through AI-based platforms. El Shazly (2021) similarly identifies AI tools such as UNIPUS AIGC, iTest, Duolingo, and ChatGPT as effective in enhancing language learning. Furthermore, Young and Shishido (2023) define AI in pedagogy as a system that delivers personalised feedback, supports lesson planning, and allows for real-time student assessment. In the context of this study, AI refers to the use of AI-driven tools and technologies, specifically ChatGPT, to support the learning process by offering personalised feedback, real-time evaluation, and adaptive learning experiences. ChatGPT also functions as an instructional aid aimed at improving students' language proficiency through structured, responsive, and engaging interactions.

Figure 1 Artificial Intelligence (AI): ChatGPT



Based on Figure 2, the construct definition of English-speaking skills, according to Phoeun and Sengri (2021), refers to an individual's speaking ability is an active interaction that can be assessed through aspects such as fluency, pronunciation, grammar, vocabulary, and comprehension. Saed et al. (2021) further argue that these aspects of speaking skills can be achieved through the use of technology-based tools, as such tools can motivate students to master English-speaking skills. In the context of this study, English-speaking skills refer to an individual's ability to communicate orally in English with fluency, clear pronunciation, correct grammar usage, appropriate vocabulary, and good comprehension. These skills are developed through learning activities that involve interaction, practical experience, and the use of technology such as online platforms, including ChatGPT. Emphasis is also placed on building self-confidence in communication situations, as well as the use of activity-based learning techniques such as simulations, which provide students with opportunities to express ideas clearly and enhance their speaking confidence.

Figure 2 English-Speaking Skills



ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume IX Issue IV April 2025

Based on this construct definition, the analysis identified three main themes in this study: the impact of AI on speaking skills, the role of AI in language learning, and the challenges and limitations of using AI in education. The following discussion elaborates on each of these themes.

The Role of AI in Language Learning

AI plays a key role in personalizing learning experiences and offering gamified and interactive simulations. Studies show that AI helps students reduce speaking anxiety, build confidence, and provides a more flexible learning environment. Mittal et al. (2024) support this by stating that AI can adapt task difficulty to suit individual learner abilities, making the learning process more tailored. Similarly, Omar et al. (2024) found that ChatGPT adjusts dialogues to different levels of difficulty, allowing students to progressively build confidence in speaking. AI also supports learning strategy management, particularly for autonomous learners who can adapt their learning techniques through AI tools.

The Impact of AI on Speaking Skills

AI functions as a learning tool that improves fluency, pronunciation, grammar, vocabulary, and contextual understanding. AI technologies provide structured and interactive practice that accelerates language development. Platforms such as ChatGPT, Duolingo, UNIPUS AIGC, and iTEST offer real-time feedback, helping learners immediately correct their errors. Qiao and Zhao (2023) confirm that AI-enhanced learning significantly boosts fluency and pronunciation accuracy among EFL learners. Furthermore, AI supports self-directed learning by allowing students to access practice and conversation simulations without relying entirely on the teacher.

Challenges and Limitations of AI Use

Despite its advantages, several challenges must be addressed to ensure AI has a positive impact on language learning. Overreliance on AI can reduce learner autonomy and critical thinking skills, as noted by Seo et al. (2021). Students overly dependent on AI may struggle to construct sentences independently, relying instead on AI's immediate feedback.

Bias and inaccuracy in AI systems are also major concerns. Bender et al. (2021) emphasize that AI models trained on unbalanced datasets may generate biased responses, potentially misguiding learners regarding proper language structure or appropriate academic language.

Data privacy and security concerns represent another key limitation. Ikwuanusi et al. (2023) warn that AI collects and stores user data, which, without proper safeguards, poses security risks. This is particularly critical when dealing with student data in educational contexts. Therefore, although AI holds potential for enhancing language learning, robust control measures and ethical guidelines are essential to ensure responsible and safe usage.

CONCLUSION

This meta-analysis reveals that AI, especially ChatGPT, holds significant potential in enhancing English-speaking skills by offering personalized learning experiences, interactive training, and instant feedback. AI accelerates the acquisition of fluency, pronunciation, grammar, and vocabulary while helping students overcome speaking anxiety. However, challenges such as learner dependency, AI bias, and data privacy concerns must be considered. Hence, this study recommends that AI in language learning be integrated with traditional pedagogical approaches to ensure a balanced and effective learning process. Additionally, the development of policies and ethical guidelines should be prioritized to govern AI use responsibly in education. Future research should evaluate the long-term effectiveness of AI in language learning and identify the best strategies to mitigate the challenges it presents. While AI tools like ChatGPT have proven innovative, they should be used in a controlled and complementary manner to ensure their benefits truly support students in mastering English-speaking skills.

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