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Exploring the Impact of Artificial Intelligence on English Majors' Speaking Skills: A Case Study at a Vietnamese University

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Abstract
This study aimed to investigate the impact of artificial intelligence (AI) on the speaking skills of second-year Vietnamese university students majoring in English as a Foreign Language (EFL), and the attitudes of both students and lecturers toward the integration of AI in speaking classes at a university in Ho Chi Minh City, Vietnam. The study sample consisted of 80 students (N = 80), divided into two groups: a control group (N= 40), which followed the traditional approach, and an experimental group (N = 40), which received AI-supported speaking instruction. The researchers collected data both quantitatively and qualitatively through pre-tests, post-tests, and student questionnaires. The survey results showed a significant improvement in the speaking abilities of students in the experimental group. In addition, findings revealed that AI tools enhanced learners' confidence, autonomy, fluency, and opportunities for interactive practice beyond the classroom. The findings also pointed out several technological and pedagogical challenges associated with AI integration. Based on the results, the researchers proposed recommendations for lecturers and students to optimize the use of AI in speaking classes and improve instructional effectiveness.
Keywords: Artificial intelligence, artificial intelligence-assisted learning, English speaking skills, motivation, Vietnamese English as a foreign language learner
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Introduction

Learning a language is intended to enable effective communication. Listening, speaking, reading, and writing are four crucial skills that a language student must master (Kurniasih, 2016). Among these skills, speaking plays a pivotal role, as people usually refer to those who know a language as its speakers, and speaking serves as the primary skill for communication and interaction in daily English contexts. Additionally, speaking functions as a crucial means of exchanging ideas and conveying messages verbally. Using the language in authentic, real-life situations helps facilitate children's communication skills (Afrizal, 2017).

In the context of teaching English as a Foreign Language (EFL) in Vietnam, a persistent challenge is the inadequate speaking competence of many English-major university students, particularly in real-life communication at both national and international levels, despite seven to ten years of English study in high school. This limitation largely results from an instructional focus that prioritizes grammar, reading, and writing, while speaking receives insufficient emphasis. As a result, students rarely gain confidence or meaningful opportunities to engage in interactive communication. Researchers primarily train them to perform well on grammar- and writing-based examinations, which means that speaking practice is limited, infrequent, and often disconnected from authentic communicative contexts. As a result, even high-performing students struggle to use English flexibly and naturally in real-world communicative settings and frequently demonstrate limited confidence in oral interaction. These limitations highlight the urgent need to implement more effective speaking teaching instructional strategies, particularly approaches that integrate modern technologies such as AI, in order to enhance the practical communication skills of EFL students.

In response to this issue, the authors have incorporated Artificial Intelligence (AI) as a strategy to support and enhance students' speaking competence. In recent years, AI has significantly impacted various fields, particularly in language education, where it has transformed teaching and learning practices. AI-supported tools such as ChatGPT, Gemini, text-to-speech systems, and other intelligent CALL platforms have increasingly demonstrated their ability to assist learners with pronunciation, fluency, and accuracy. AI-powered chatbots can answer questions, engage in natural dialogue, and provide 24/7 support. This affords learners expanded opportunities for interaction, personalized scaffolding, and a low-pressure environment conducive to speaking practice, thereby aligning closely with the principles of communicative language teaching. Numerous studies conducted from 2020 to the present indicate that AI-assisted speaking practice significantly enhances learners' oral performance. Improvements are particularly evident in pronunciation accuracy, speaking fluency, and overall confidence. Learners gain substantial advantages from independent practice, immediate feedback, and meaningful interaction, all within a low-pressure environment that minimizes the fear of judgment. For instance, Nguyen et al. (2025a) found marked improvements in pronunciation competence after four months of using AI-powered voice recognition; Qiao and Zhao (2023a) reported gains in speaking fluency and accuracy when students interacted with AI chat tools; Aryanti and Santosa (2024a) in their systematic review highlighted the positive effect of AI apps (like ELSA Speak) on pronunciation; Huang, Dou, and Cheng (2024a) documented increased speaking confidence in AI-supported dialogue environments.

Despite the positive outcomes reported in previous studies, a research gap remains in the Vietnamese context, particularly concerning learners' perceptions, attitudes, and actual performance in AI-assisted speaking practice. Addressing this gap is significant, as it can provide

a foundation for curriculum design, teaching strategies, and technology integration into EFL programs. Furthermore, he findings may offer insights into learners' autonomy, engagement, and self-regulated learning in digital environments, thereby enhancing the effectiveness of English language learning, especially in oral communication.

Therefore, this study aims to examine the impact of AI-assisted instruction on Vietnamese EFL university students' speaking skills and their attitudes toward using AI in learning. Specifically, it addresses the following research questions:

(1) How does artificial intelligence enhance Vietnamese EFL university students' speaking skills?

(2) What are students' attitudes toward using AI to improve their speaking performance in the Vietnamese context?

Literature Review

Importance of Speaking Skills in EFL

Numerous scholars emphasize that mastery of speaking skills is often equated with overall language mastery, as oral communication is the most visible and immediate form of language use (Burns, 2016; Richards, 2015). Within the context of globalization, English communication is of paramount importance, as it serves as an international language across academia, multicultural collaborations, and various other domains. Studies in applied linguistics consistently indicate that meaningful speaking practice plays a crucial role in enhancing learners' fluency, accuracy, pronunciation, and confidence. This, in turn, facilitates the development of other language skills, particularly listening and pragmatic competence (Goh & Burns, 2012; Luoma, 2004). Effective speaking instruction contributes not only to improvements in fluency and pronunciation, but also to the development of learners' confidence, autonomy, and communicative readiness. Studies show that frequent opportunities for meaningful oral interaction help learners facilitate vocabulary, apply grammar structures, and use English more naturally in authentic communicative settings (Brown & Lee, 2015).

Local studies indicate that although Vietnamese learners have studied English for many years, they often encounter difficulties with pronunciation, fluency, and spontaneous interaction (Le, 2020; Nguyen & Pham, 2022). These challenges stem from long-standing exam-oriented practices that emphasize grammar, reading, and writing while offering limited opportunities for communicative speaking practice. In this context, improving speaking skills is crucial not only for academic achievement but also for equipping Vietnamese EFL learners, particularly English majors, with the ability to participate effectively in global communication and professional settings.

Challenges in Developing Speaking Competence

Despite the recognized importance of speaking skills in EFL learning, many learners continue to struggle with developing oral proficiency. One of the most persistent challenges is the dominance of grammar-focused instruction in many educational systems. Traditional pedagogical practices often tend to prioritize grammatical accuracy, vocabulary memorization, and written exercises, whereas communicative use of language receives comparatively little attention (Richards, 2017). Brown and Lee (2015) also note that heavy emphasis on accuracy over fluency can inhibit learners' willingness to speak, as they become overly concerned about making

mistakes. Another significant barrier to speaking competence is the limited opportunities for meaningful practice. Effective speaking development requires frequent interaction, negotiation of meaning, and exposure to authentic communication (Nation & Newton, 2020). However, limited opportunities for peer and teacher–student interaction persist in many EFL classrooms worldwide, restricting learners' use of English in authentic, real-time contexts. Large class sizes, limited instructional time, and teacher-centered approaches further reduce opportunities for speaking practice, making it difficult for students to build fluency, confidence, and interactional skills (Ur, 2012).

These global challenges are particularly evident in the Vietnamese context. Although English has assumed growing importance within Vietnam's higher education system, English instruction at many universities, including programs for English majors, continues to be strongly exam-oriented. Research shows that Vietnamese students are often trained to perform well on grammar-based and reading-oriented assessments rather than to communicate orally (Le, 2020; Nguyen & Pham, 2022). Consequently, speaking practice tends to be infrequent, limited in duration, and disconnected from authentic communicative contexts. In addition, students commonly experience speaking anxiety due to fear of negative evaluation from teachers and peers, which further reduces their willingness to engage in oral participation (Tran & Duong, 2020a, 2020b).

AI in Language Learning

Artificial Intelligence (AI) has assumed a crucial role in technology-enhanced language learning by enabling access to intelligent tutoring systems, adaptive feedback mechanisms, and interactive communication environments. Recent advances in natural language processing (NLP), automatic speech recognition (ASR), speech synthesis, and generative AI have facilitated a range of applications such as AI chatbots, pronunciation training apps (e.g., ELSA Speak), intelligent personal assistants (e.g., Google Assistant), and conversational agents (e.g., ChatGPT, Gemini). These technologies support learners by offering personalized guidance, real-time communicative engagement, and sustained practice opportunities that are often difficult to achieve in traditional classrooms (Kukulska-Hulme, 2023; Li, 2022).

AI-driven speaking tools draw upon a range of advanced technologies to collectively enhance opportunities for oral practice in EFL learning contexts. Central to these systems is Automatic Speech Recognition (ASR), which enables real-time analysis of learners' spoken output and provides feedback on pronunciation, stress, intonation, and fluency—an approach shown to improve learners' phonological accuracy and speaking confidence (Aryanti & Santosa, 2024a). Complementing ASR, technologies such as Natural Language Processing (NLP) and conversational AI allows systems to interpret meaning, sustain interactions, and simulate human-like dialogues. These capabilities facilitate negotiation of meaning and promote spontaneous communication (Zhang, 2024). Building on these mechanisms, intelligent feedback systems and adaptive machine-learning algorithms tailor tasks and difficulty levels to individual learners, offering timely, personalized feedback that supports sustained improvement in speaking competence (Qiao & Zhao, 2023a). More recently, Generative AI (GenAI) has enabled dynamic role-plays, contextualized prompts, and low-anxiety communicative simulations, extending learners' opportunities for authentic oral production (Huang et al., 2024b). Collectively, these technologies form a theoretical and pedagogical foundation for AI-supported speaking

development, aligning with principles of feedback responsiveness, self-regulation, and communicative language teaching.

AI enhances L2 speaking through interconnected cognitive, affective, and interactional mechanisms. AI tools provide immediate, personalized feedback on pronunciation, grammar, and fluency, supporting learning-oriented assessment principles that rely on continuous feedback (Xu & Warschauer, 2023). Conversational agents create authentic communicative opportunities, consistent with the emphasis of CLT on real-world interaction and meaning negotiation (Richards, 2006). AI also supports TBLT, generating scaffolded tasks and allowing repeated practice to improve fluency and complexity (Ellis, 2009). In affective terms, AI offers a low-anxiety environment, helping learners, especially Vietnamese EFL students, reduce speaking apprehension and increase willingness to communicate (Tran & Duong, 2020a, 2020b). Furthermore, AI promotes self-regulated learning by enabling learners to set goals and monitor their progress (Zimmerman, 2002). Research has also demonstrated that AI-supported contexts enhance learners' autonomy and persistence (Qiao & Zhao, 2023b). From a sociocultural perspective, AI functions as digital scaffolding, providing models and corrective support similar to a human interlocutor (Lantolf & Thorne, 2006).

Empirical Evidence of AI-assisted Speaking

Recent studies conducted between 2020 and 2025 consistently indicate that AI-supported tools enhance learners' oral performance, particularly in pronunciation, fluency, and confidence. In terms of pronunciation, researchers have found that ASR-based applications such as ELSA Speak, Google Speech API, and other mobile systems improve phonological accuracy, stress, and intonation through real-time corrective feedback (Aryanti & Santosa, 2024b; Li & Zhou, 2022). Improvements in speaking fluency are also widely documented. Learners engaging with AI chatbots or conversational agents produce longer, more coherent utterances and demonstrate better temporal fluency due to repeated practice and adaptive scaffolding (Qiao & Zhao, 2023a; Zhang, 2024).

Research has additionally shown that AI reduces speaking anxiety and increases learners' confidence by providing a low-pressure, judgment-free environment. Moreover, studies suggest that students demonstrate greater willingness to communicate, participate more frequently, and maintain more prolonged interactions when practicing with AI tools compared to traditional classroom settings (Huang, Dou & Cheng, 2024a; Tran & Duong, 2020a, 2020b). Notably, recent studies published in the Arab World English Journal provide further empirical support. Shikun et al. (2024) employed mixed methods to examine the use of AI chatbots in EFL speaking instruction and found that chatbot-mediated interaction significantly enhanced learners' speaking skills by fostering a low-anxiety, non-competitive learning environment. Similarly, Alsalem (2024) investigated EFL students' perceptions and attitudes toward using ChatGPT to improve speaking skills in Saudi higher education. Based on questionnaire data from 74 female English majors across three public universities, the study reported high levels of positive perception and attitude toward ChatGPT, highlighting its pedagogical value in speaking instruction.

In the Vietnamese context, empirical research remains limited; however, emerging evidence indicates similar trends. Students report improvements in pronunciation accuracy and increased confidence after several weeks or months of using AI-powered voice-recognition and chatbot systems (Nguyen et al., 2025a). Overall, the existing literature supports the effectiveness

of AI-assisted practice in developing key components of speaking and provides a strong foundation for exploring its impact on Vietnamese EFL university learners.

Research Gap in the Vietnamese Context

A substantial body of international research has examined the application of AI to enhance vocabulary, pronunciation, fluency, reduce speaking anxiety, and improve writing and overall language skills. However, research specifically focusing on AI-assisted speaking instruction for English majors remains limited (Lê & Phạm, 2023; Trần, 2022). Additionally, there is little research on Vietnamese university students' attitudes toward using AI tools for communication, even though learners' perceptions play a crucial role in technology adoption and sustained engagement. Current evidence does not fully explain how AI influences the development of speaking skills in Vietnamese EFL classrooms. This gap emphasizes the need for studies that evaluate both the effectiveness of AI-assisted speaking practice and learners' perspectives, thereby providing a rationale for the present study.

Methodology

Research Designs

This study aims to examine the effects of AI implementation on the speaking ability of Vietnamese EFL university students. It also investigates students' attitudes toward using AI to improve their speaking skills. The researchers employed a mixed-method approach, combining quantitative and qualitative data collection through pre-tests, post-tests, and student questionnaires. The results showed a significant improvement in the speaking abilities of students in the experimental group compared to the control group. Quantitative methods are appropriate for data collection from groups or individuals to obtain general information about opinions.

Participants

The researcher conducted with 80 students in a Vietnamese university during the academic year 2024 – 2025. The study involved 80 students (N = 80), who were assigned to two groups: a control group (n = 40), which followed the traditional teaching approach, and an experimental group (n = 40), which received AI-assisted instruction in speaking skills. The study sample consisted of 80 students (N = 80). All participants had approximately the same level of English proficiency. The researchers obtained prior informed consent from the students and explained the objectives and procedures of the study to them.

Instruments

a) Tests

The researchers utilized both a pre-test and a post-test to gauge changes in speaking ability before and after the intervention. The evaluation was designed to assess students' proficiency in oral communication, focusing on their fluency, accuracy, and overall speaking ability. Both groups underwent assessments of their speaking skills, with the post-test administered to the experimental group after the intervention. This assessment aimed to ascertain the impact of the intervention on students' proficiency in spoken English.

b) Questionnaires

To collect data on students' attitudes toward AI's role in improving speaking skills, a structured questionnaire was designed and administered. The questionnaire consisted of 12 items, each measured on a 5-point Likert scale ranging from one (Strongly Disagree) to 5 (Strongly Agree). The researchers developed the items to explore various dimensions of students' perceptions, including the educational value of AI tools, their effectiveness in enhancing speaking performance, students' self-awareness and reflection, and the emotional impact of using AI.

Data Collection and Analysis

To investigate the impact of the intervention, pre-test and post-test data were analyzed using SPSS software, specifically employing the chi-square test to determine statistical significance. This analysis provided insights into the effect of AI-assisted instruction on English majors' speaking skills from the students' perspective. The researchers analyzed the quantitative survey data using descriptive statistics, including percentages, mean scores, and standard deviations. After data collection, Google Forms automatically compiled the survey responses into a spreadsheet. The researcher then analyzed the data by calculating the percentage of each selected answer. The researchers further analyzed the results to identify the most and least frequently selected responses and to examine overall trends in participants' opinions. Finally, the researcher summarized the responses for each question and interpreted the data to draw conclusions from the survey results.

Results

Results of the pre-test

Table 1. *The statistics of the pre-test total*

		Control group	Experimental group
N	Valid	40	40
	Missing	0	0
Mean		5.15	4.6
Medium		5	5
Mode		5	5
Std. Deviation		1.25	1.48
Minimum		3	2
Maximum		8	8

Before conducting the study, a pre-test was administered to both the control and experimental groups to assess their speaking skills. The results showed that the control group had slightly higher mean scores (5.15) than the experimental group (4.6), resulting in a higher standard deviation for the experimental group (1.48) compared to the control group (1.34), which suggests greater score dispersion. Despite these differences, both groups shared the same median and mode of 5.0. The minimum score of the experimental group was lower than that of the control group (2.0 vs. 3.0), while the maximum score was identical for both groups (8.0).

Results of the post-test

Table 2. *The statistics of the post-test total*

		Control group	Experimental group
N	Valid	40	40
	Missing	0	0
Mean		5.5	6.08
Medium		5	6
Mode		5	6
Std. Deviation		1.31	1.09
Minimum		2	3
Maximum		8	9

The experimental study lasted for one semester (15 weeks) during the 2024-2025 academic year. Throughout this period, the researchers taught the experimental group speaking skills using AI applications, whereas the control group received traditional instruction. Subsequently, the researchers administered a post-test to both groups. The researchers will use the results from this test to assess the improvement in speaking skills of students who used AI tools and to compare their performance with that of the control group.

Looking at Table 2, we can clearly see the significant progress of students who use AI for their speaking skills. The mean score for the experimental group improved considerably, increasing by 1.48 scores from 4.6 (Pre-test) to 6.08 (Post-test). In contrast, the control group showed minimal improvement, with their mean score rising by only 0.35 scores, from 5.15 to 5.5. The dispersion of scores in the experimental group also decreased significantly. The standard deviation for the experimental group dropped from 1.48 to 1.09, indicating that student scores became more uniform. The standard deviation for the control group decreased slightly, indicating minimal change, from 1.34 to 1.25. Moreover, other statistical indicators also show a clear improvement for the experimental group. The Mode and Median both increased from 5.0 to 6.0. The minimum score rose from 2 to 3, and the maximum score increased from 8 to 9. Conversely, these indicators for the control group remained essentially unchanged. The Mode and Median were still 5.0, the minimum score was 3.0, and the maximum score was 8.0.

These results clearly indicate that applying AI tools is a more effective approach than traditional teaching methods for improving students' speaking skills.

The ***Students' Feedback on Questionnaires***

Table 3. *Measuring students' perceptions of AI in enhancing their speaking abilities (N = 40)*

Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. AI tools helped me improve my overall speaking performance and present my best speaking abilities.	0/0.0%	0/0.0%	5/12.5%	24/60.0%	11/27.5%
2. AI-assisted practice helped me develop the necessary speaking abilities and demonstrate knowledge of various speaking formats and techniques.	0/0.0%	0/0.0%	4/10%	21/52.5%	15/37.5%
3. AI tools allowed me to digitally gather, store, and manage spoken or multimedia outputs effectively.	0/0.0%	0/0.0%	6/15%	18/45%	16/40%

4. AI-assisted helped me develop a stronger sense of ownership and authorship in spoken tasks.	0/0.0%	0/0.0%	10/25%	17/42.5%	13/32.5%
5. AI tools enabled me to critically assess, reflect on, and gain deeper self-awareness about my speaking ability.	2/5.0%	2/5.0%	11/27.5%	14/35.0%	11/27.5%
6. AI-assisted practice helped me identify gaps in my speaking skills and knowledge.	1/ 2.5%	3/7.5%	9/22.5%	17/42.5%	10/25.0%
7. AI tools helped me track my progress in speaking over time.	0/0.0%	0/0.0%	7/17.5%	20/50.0%	13/32.5%
8. AI-assisted practice motivated me to actively improve my speaking ability.	0/0.0%	0/0.0%	6/15.0%	14/35.0%	20/50.0%
9. AI tools reduced my anxiety and stress when performing speaking tasks.	3/7.5%	4/10%	5/12.5%	16/40.0%	12/30.0%
10. AI-assisted speaking practice provides significant educational value for enhancing my English speaking skills.	0/0.0%	0/0.0%	3/7.5%	25/62.5%	12/30.0%

After completing the experiment, the researchers administered a 10-item questionnaire to 40 second-year English majors to assess their perceptions of AI-assisted tools in enhancing speaking skills. Overall, the results from Table 3 show that students have a very positive attitudes toward the use of AI in speaking practice. The average percentage of students who agree or strongly agree with the effectiveness of AI tools is 79.75%. These findings indicate that students accept AI-assisted practice as a helpful tool. In contrast, the percentage of students who disagree or strongly disagree is very low, accounting for only 3.75% of the total responses and only appearing in items 5, 6, and 9. This further reinforces students' positive attitudes toward AI-assisted speaking practice.

Most students agreed that AI tools helped them improve their overall speaking performance, develop necessary speaking abilities, and demonstrate knowledge of various speaking formats and techniques. They also felt that AI tools allowed them to effectively record, store, and manage their spoken outputs. The survey found that AI-assisted practice motivated students to proactively improve their speaking skills, with 50% strongly agreeing with this statement. The majority of students also believed that AI-assisted speaking practice provides significant educational value in improving their English speaking skills. AI-assisted activities helped them develop a stronger sense of ownership and self-control in speaking exercises.

Although most students felt that AI tools reduced anxiety and stress when speaking, this item had the highest proportion of negative responses (17.5% disagreed or strongly disagreed) in Items 4, 8, and 9. A significant portion of students agreed that AI-assisted practice enabled them to to assess and reflect on their speakingability critically and helped identify gaps in their skills and knowledge. However, only these items, including Item 9, received negative responses, suggesting that some students encountered difficulties with self-assessment and reflection. In Item 7, the majority of students indicated that AI tools helped them monitor their progress in speaking over time.

Discussion

The results of the research found that the application of AI tools had positive effects on students' speaking skills. This discussion will delve into the detailed analysis of the findings, aiming to answer two main research questions:

Research question 1: *How does artificial intelligence enhance Vietnamese EFL university students' speaking skills?*

The use of AI-assisted practice, including chatbots and recording tools, proved to be more effective than traditional teaching methods in improving students' speaking abilities. Data from the post-intervention test showed that the experimental group improved more than the control group. The mean score of the experimental group increased from 4.6 to 6.08. In contrast, the control group showed a small minor improvement, rising from 5.15 to 5.5, highlighting the greater gains achieved by students who received AI-assisted instruction. This indicates that AI-assisted tools positively impact students' speaking performance.

AI tools enable students to self-regulate their learning, including stages such as anticipation, performance, and reflection. By recording and reviewing their own speech, learners can self-evaluate, track progress, and identify areas for improvement, which aligns with previous research showing that technology-assisted practice enhances self-regulation in EFL learning. The integration of multimedia elements and interactive AI feedback also facilitates reflective practice, allowing students to assess their spoken outputs critically.

Although overall attitudes toward AI-assisted practice were very positive, some students still faced challenges. Negative feedback mainly focused on reducing anxiety and stress during speaking tasks, suggesting that while AI provides a low-pressure environment, it may not eliminate performance-related apprehension for all learners.

This aligns with findings from previous studies (Aryanti & Santosa, 2024; Huang, Dou, & Cheng, 2024; Nguyen et al., 2025a; Nguyen et al., 2025b; Qiao & Zhao, 2023a; Qiao & Zhao, 2023b), which highlight the effectiveness of AI-assisted tools, chatbots, and voice-recognition systems in enhancing learners' speaking proficiency, fostering self-regulated learning, and increasing confidence. While most students expressed positive attitudes and increased motivation, some still experienced challenges related to speaking anxiety.

In general, AI tools not only enhance English speaking proficiency but also promote learner autonomy, reflective learning, and confidence. Additionally, AI creates a more dynamic classroom environment, offering greater opportunities for interaction compared to traditional grammar- and writing-focused instruction.

Research question 2: *What are students' attitudes toward using AI to improve their speaking performance in the Vietnamese context?*

The results from the questionnaire showed that 79.75% of the students agreed or strongly agreed with the effectiveness of AI-assisted tools. The findings suggest that students generally accept AI as a helpful tool. In contrast, the negative response rate (disagree or strongly disagree) was only 3.75%.

Most students agreed that AI-assisted practice helped them improve their overall speaking performance and present their best abilities. Many students reported that AI-assisted practice motivated them to actively improve their speaking skills, with 50% strongly agreeing. They also believed that AI tools provided significant educational value in enhancing their English speaking skills. A substantial proportion of students stated that AI-assisted practice helped them self-assess, reflect, and identify limitations in their skills.

Despite the generally positive feedback, the survey also identified some challenges. The only items that received negative responses were related to self-assessment, reflection, and reducing anxiety. Specifically, Item nine (AI tools reduced my anxiety and stress when performing

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speaking tasks) received the highest proportion of negative responses at 17.5%, indicating that some students may face difficulties with self-assessment and reflection, and for a smaller group, using AI tools might not fully alleviate speaking-related anxiety.

These findings align with previous research on AI-assisted and digital tools in language learning. Studies such as Aryanti and Santosa (2024a), Nguyen et al. (2025a), and Qiao and Zhao (2023a) reported that AI-supported speaking practice enhances learners' pronunciation, fluency, confidence, and reflective learning. Similarly, research by Huang et al. (2024) and Tran & Duong (2020) emphasized the motivational and low-anxiety benefits of AI tools for Vietnamese EFL learners. While students generally hold positive attitudes toward AI-assisted speaking practice, some challenges persist, including difficulties with self-assessment, reflection, and speaking-related anxiety. AI platforms allow learners to record, review, and refine their spoken output beyond the classroom, supporting self-regulated learning and continuous improvement (Nguyen et al., 2025b; Qiao & Zhao, 2023).

In summary, Vietnamese EFL students generally hold positive attitudes toward AI-assisted practice and recognize the benefits of using AI tools in their learning, which help improve speaking skills, responsiveness, and learning motivation.

Conclusion

Findings

The application of AI-assisted tools, including chatbots and recording platforms, had a statistically significant positive effect on the speaking skills of the experimental group. Students in the experimental group demonstrated substantial improvement, with the mean post-test score rising from 4.6 to 6.08. In contrast, the control group exhibited only a slight increase, from 5.15 to 5.5, emphasizing the greater gains achieved by students who received AI-assisted instruction. The majority of students majoring in English hold a positive attitude toward AI-assisted practice, with 79.75% agreeing or strongly agreeing that it is an effective tool. The negative response rate was very low, at only 3.75%. Students perceived AI tools as valuable for improving their overall speaking skills, developing necessary skills, and providing significant educational value. AI-assisted practice motivated students to actively improve their speaking skills, with 50% strongly agreeing with this item. The study revealed that AI tools support students' self-assessment, reflection, and the identification of skill gaps. These findings are consistent with previous research showing that technology- and AI-assisted practice promotes self-regulated learning and reflection. Despite the overall positive feedback, the researchers identified some challenges. The highest proportion of negative responses (17.5%) concerned whether AI-assisted practice reduced anxiety and stress during speaking tasks. This suggests that some students may face difficulties with the self-assessment and reflection process. It also indicates that AI tools may not fully alleviate speaking-related anxiety for all users.

Implications

Using AI-assisted tools, such as chatbots and recording platforms, is a more effective approach for way to enhance English majors' speaking skills in Vietnam than traditional teaching methods. Lecturers should integrate AI-supported speaking practice into their curriculum to help students improve their speaking performance. AI tools also support students in self-assessing, reflecting, and tracking their learning progress over time, enabling them to identify areas for improvement in speaking skills. While the majority of students reported positive attitudes and

increased motivation, some faced challenges related to anxiety and stress during speaking tasks. It is vital for students need to be aware of these potential difficulties and seek support from instructors or peers to overcome them. Universities should invest in technological infrastructure and provide professional development programs to equip both faculty and students with the necessary skills to implement AI-assisted learning effectively. Addressing technical limitations, such as unreliable internet access and limited device availability, is crucial to achieving successful and consistent adoption.

Limitations & Recommendations for Future Research

The limitations of this study include the small sample size, comprising only two groups (control group, N = 40; experimental group, N = 40), and the fact that the research was conducted at a single university. Furthermore, the short intervention period of only one academic year does not fully capture the long-term effects of AI-assisted speaking practice. Therefore, future research should track changes over a longer period, include multiple universities, and use more in-depth qualitative methods, such as interviews or focus groups, to better understand the challenges students face and to propose practical strategies for implementing AI-supported tools in English language teaching and learning.

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