



## **Exploring the Use of AI in Enhancing Speaking Skills in EFL Learners<sup>1</sup>**

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### **Öz**

This study aims to examine the effects of artificial intelligence-based language learning tools on EFL learners' speaking skills. Through semi-structured interviews with participants selected by criterion sampling, the effects of AI-based applications on EFL learners' speaking skills were examined. The findings show that AI tools provide significant improvement in speaking skills such as pronunciation, vocabulary, fluency and grammatical accuracy. However, there are also some limitations such as technical problems and issues with feedback and personalization mechanisms. While this study reveals the potential of artificial intelligence in the field of language teaching, it also emphasizes the need to develop tools with personalized and user-friendly interfaces in order to use this new technology more effectively. The results provide important clues on the design and development of AI-based language learning applications and can guide future research in the field.

**Keywords:** AI, Speaking, EFL, Language learning, AI Prompts

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### **Introduction**

Rapid advances in artificial intelligence (AI) technologies have led to groundbreaking developments in many fields. The introduction of the first publicly accessible AI tool, ChatGPT, by OpenAI company in November 2022 has attracted an unprecedented attention to the field of AI. The field of language learning was no exception, and today AI-based tools are transforming traditional methods by offering new learning experiences. However, research on the impact of AI on speaking skills in the context of English as a foreign language learners (EFL) is still under-researched. Therefore, the issue of how effectively AI can be incorporated as a learning tool in EFL education seems to be an important question that requires a timely answer. The main purpose of this study is to understand the role of AI-based tools in improving EFL learners' speaking skills and to address the lack of knowledge in this area. The results of the study can provide important clues on how AI can be used more effectively in the EFL learning process and may guide future educational practices and applications.

### **Literature Review**

In today's globalized world, most people use more than one language, and English stands out as a universal language that enables people from different cultures to come together and communicate. "English functions as a global lingua franca, which means a way of communicating in English

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between speakers of different native languages” (Jenkins, 2006; Seidlhofer, 2005). Therefore, individuals tend to learn English for different purposes. For example, some want to use English in daily life, while others need English for academic studies.

Learning strategies are of great importance in the process of developing learners' language skills. According to O'Malley and Chamot (1990), learning strategies include various methods and techniques that second language learners use in organizing and recalling their language knowledge. These strategies enable learners to be more active in the learning process. For example, motivation is a key factor of success in language learning and “even people with extraordinary ability can fail to achieve long-term goals” (Dörnyei, 1998). In a similar sense, learner autonomy is believed to be an important factor in language learning. According to Little (1991), learner autonomy can be described as a learner's being in control of their own learning process. In this context, both motivation to learn and autonomy are very important assets in language learning. It can be said that technology also plays an important role in this process. According to Ahmadi (2018), students can learn languages better and more enjoyable thanks to technological tools such as computers and videos. Additionally, Larsen-Freeman (2000) expresses technology enriches students' learning experiences and takes a place in their lives.

With this in mind, a range of studies have shown that integrating technology into language learning improves learners' language proficiency. However, the role of the advanced technologies in language learning such as AI has not been extensively explored. Nevertheless, there are some studies addressing different aspects of AI use in education. Woo and Choi (2021) found that AI-based tools help improve students' language skills. Similarly, Rusmiyanto et al. (2023) emphasized that AI can significantly improve English language learners' communication skills thanks to its functionality in providing individualized learning experiences. Godwin-Jones (2022) found that, both students and teachers benefit from AI-supported writing tools, while Wang et al. (2023) examined the ways in which elementary school students interacted with AI and found that deep engagement enhanced the benefits of AI. Zou et al. (2023) examined how AI-based conversation applications contributed to Chinese university students' English speaking skills and discovered the significant role of interactions in social networks in this process. De la Vall and Araya (2023) emphasized the potential of AI to provide personalized learning and cultural experiences, while also noting the need for human interaction and extensive data for the further development of this technology. Haristiani (2019) showed that AI-powered chatbots can assist learners by acting as tutors and provide them with independent learning opportunities in language learning. Students have positive attitude towards these bots due to their ease of access and their role in increasing self-confidence. Ji et al. (2023), in a comprehensive review, stated that use of AIs in conversation for language learning may bring together many benefits as well as certain challenges. Belda-Medina and Calvo-Ferrer (2022), in their study where they examined the attitudes of future educators towards AI-based conversation tools, found positive results regarding the ease of use of these tools and students' interest in them. Zaghlool and Khasawneh (2023) explored the role of AI in foreign language teaching and demonstrated the potential of AI in various areas such as feedback mechanisms, assessment techniques and interactive platforms. The researchers emphasized that AI positively contributes to language learning, but it also has certain limitations such as quality of data and issues with contextual awareness.

In conclusion, studies show that AI has great potential in various areas of language learning. However, the impact of AI on students' speaking skills in particular is yet to be understood. Although AI applications have the potential to make the learning process more effective and accessible, more research is needed on their specific effects on improving EFL learners' speaking skills. This study aims to address the gap in knowledge in this area by examining students' perceptions of the use of AI based tools, the challenges they face, and how effective they are compared to traditional methods.

## **Method**

The integration of artificial intelligence into language education offers a new and groundbreaking approach, especially for EFL learners. Ranging from intelligent chatbots to complex language learning systems, these technologies offer innovative tools and methods to help learners improve their speaking skills. The purpose of this study is to uncover the effectiveness of these technologies in second

language acquisition by exploring EFL learners' views on their AI-based learning experiences. Adopting a qualitative research methodology, this study analyzes learners' experiences and perceptions through semi-structured interviews.

**Figure 1**

*The Participants and Their Ages*

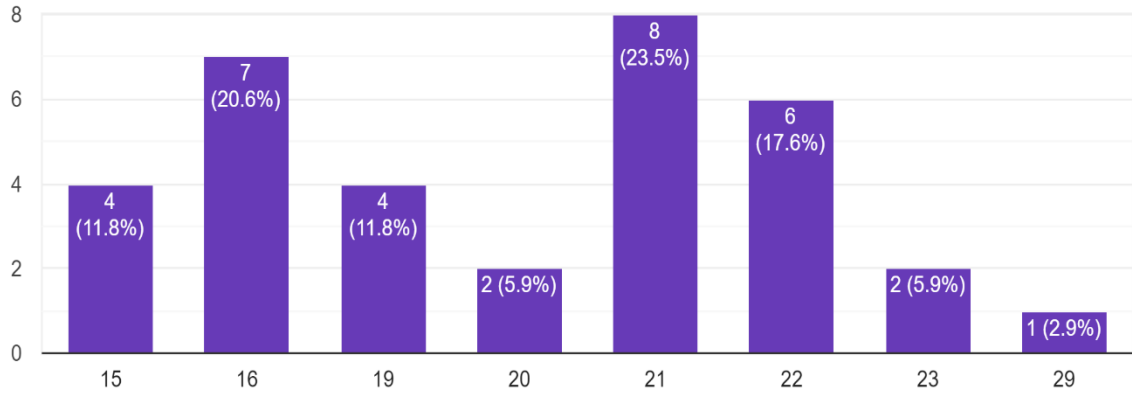


Figure 1 shows the age distribution of the 34 students and the corresponding percentages. From the data, it can be seen that the majority of the students are between 16 and 22 years old, with the highest concentration at the ages of 16 and 21. The lower percentages at the ages of 23 and 29 indicate that there are fewer older students in this sample.

**Figure 2**

*Participants' Reported Language Levels According to CEFR*

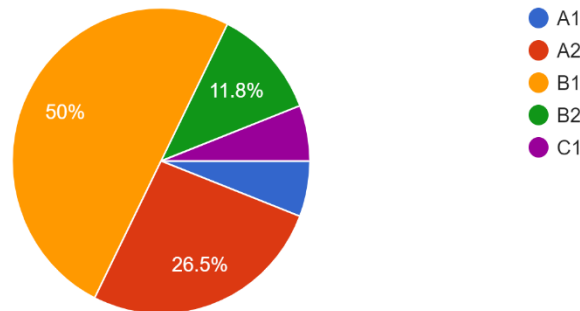


Figure 2 shows that the majority of students (50 per cent) perceive their English proficiency to be at B1 level, indicating an intermediate command of the language. A significant percentage of 26.5 per cent reported being at A2 level, indicating a beginning level of proficiency. Smaller percentages are at A1 (beginner) and B2 (upper intermediate) levels and only one student is at C1 (advanced) level.

The interviews are intended to elicit detailed user experiences and perceptions. Here are the semi-structured interview questions employed in the study:

### Interview Questions

1. What types of AI tools or platforms are you now using to improve your English speaking skills?
2. How often do you use these AI tools in your language learning?

3. Can you describe your experience of practicing speaking English using AI? What was it like?
4. What is the most useful thing about using AI when learning to speak English?
5. Which areas of speaking do you think you have improved the most by practicing with AI?
6. Have you encountered any setbacks or areas where AI has not met your expectations in learning to speak English?
7. How has using AI affected your motivation to practice speaking English?
8. Do you find AI tools engaging, why or why not?
9. How do you perceive the feedback you receive from AI about your pronunciation and grammar?
10. What improvements would you like to see in the feedback provided by AI?
11. What are some common prompts or topics you use when practicing speaking with AI?
12. How do these prompts help you in your speaking practice?

These questions were carefully developed after reviewing the relevant academic literature to elicit responses from students and focused on the function of artificial intelligence in language learning. Content analysis was used to analyze the data and the data was presented in tables as themes, codes, and quotes. The research stages were clearly and explicitly stated for the validity and reliability of the study. In addition, ethical norms were followed, participants' consent was obtained, and confidentiality was maintained.

The following research questions seek to investigate the impact and effectiveness of AI tools on learners' English-speaking skills.

1. What specific improvements do learners perceive in their speaking skills as a result of using AI tools?
2. What challenges do learners face when using AI tools for English speaking practice?
3. How do AI tools integrate with learners' overall language learning strategies and their daily routines?
4. What are learners' perceptions of the effectiveness of AI tools in developing specific speaking skills compared to traditional learning methods?

## Findings

### What specific improvements do learners perceive in their speaking skills as a result of using AI tools?

**Table 1**

*Perceived Improvements in Speaking Skills*

Theme	Code	Extracts
<b>Specific Improvements</b>	Vocabulary Enhancement	"My vocabulary has improved", "I feel better about my vocabulary"
	Pronunciation	"I think my pronunciation has improved", "I try to improve my pronunciation by learning the pronunciation of some words I don't know"
	Fluency	"I feel that I am becoming more fluent and more articulate when talking to the other person"
	Grammatical Accuracy	"It helps me to make proper sentences", "It has a high accuracy rate in grammar"

The results of the study in Table 1 reveal that AI-based language learning tools lead to improvements in students' English-speaking skills. In particular, participants reported improvements in vocabulary, pronunciation, fluency and grammatical accuracy. The AI tools provided immediate

feedback to students, helping them to correct their mistakes and gain correct pronunciation. Furthermore, it was observed that AI contributes to students' self-confidence in speaking, which eventually leads to more fluent and natural communication for them. As for grammar, it is further discovered that AI feedback system helped students identify their errors by modeling correct sentence structures. These findings suggest that AI-based language learning tools can be very effective in addition to traditional learning methods and have the potential to open a new dimension in language learning.

### **What challenges do learners face when using AI tools for English speaking practice?**

**Table 2**

*Challenges in Using AI for English Speaking Practice*

<b>Theme</b>	<b>Code</b>	<b>Extracts</b>
<b>Effectiveness in Speaking</b>	AI vs. Traditional Learning	"Better than school", "It was like talking to a person in person", "It made me feel less embarrassed because it was like talking to someone in front of me"
	Feedback Quality	"AI can help us correct our mistakes and make more meaningful sentences", "I think my pronunciation and self-confidence have improved"
<b>Personalization</b>	Customization	"It can offer you products according to your knowledge level and is quite fast", "Having an English conversation partner that you can use whenever you want"
	Lack of Personal Touch	"It would be good if the language was more sincere, more open and less formal", "Lack of sincerity"
<b>Comparative Advantages</b>	Convenience	"Being able to talk at any hour", "It makes it very easy", "We can reach everything"

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### **How do AI tools integrate with learners' overall language learning strategies and their daily routines?**

**Table 3**

*Integration of AI Tools in Language Learning Strategies*

<b>Theme</b>	<b>Code</b>	<b>Extracts</b>
<b>Integration in Routine</b>	Daily Usage	"Every day", "once a week", "Daily"
	Occasional Usage	"once a week", "once a month", "rarely"
<b>Complement to Other Methods</b>	Support for Other Activities	"I usually use it during the process if there is an exam I am preparing for", "I talk about the subjects I am responsible for in my lessons"

Table 3 reveals that learners integrate AI tools into their language learning strategies in two main ways: as part of their routine and as a complement to other methods. The frequency of incorporation of AI tools into their daily language learning routines is highlighted by phrases such as “every day” and “once a week”, although some students use them less frequently. Moreover, it was discovered that students see AI tools as a complement to traditional study methods. They state AI tools support them in other learning activities such as preparing for exams and lessons. This finding highlights the role of AI in providing individualized content in the form of tutoring, a vital component of any learning environment effectively addressing students’ needs.

### **What are learners' perceptions of the effectiveness of AI tools in developing specific speaking skills compared to traditional learning methods?**

**Table 4**

*Perceptions of AI Tool Effectiveness Compared to Traditional Methods*

<b>Theme</b>	<b>Code</b>	<b>Extracts</b>
<b>Effectiveness in Speaking</b>	AI vs. Traditional Learning	"Better than school", "It was like talking to a person in person", "It made me feel less embarrassed because it was like talking to someone in front of me"
	Feedback Quality	"AI can help us correct our mistakes and make more meaningful sentences", "I think my pronunciation and self-confidence have improved"
<b>Personalization</b>	Customization	"It can offer you products according to your knowledge level and is quite fast", "Having an English conversation partner that you can use whenever you want"
	Lack of Personal Touch	"It would be good if the language was more sincere, more open and less formal", "Lack of sincerity"
<b>Comparative Advantages</b>	Convenience	"Being able to talk at any hour", "It makes it very easy", "We can reach everything"

Table 4 shows the perceived advantages and disadvantages of the AI tools in language learning compared to traditional methods. It was observed that AI has significant potential in providing opportunities for speaking skills, personalized learning experiences and for ease of access.

Students stated that they were able to engage in speaking practices more comfortably and confidently thanks to AI tools' ability to simulate realistic speaking mediums. The instant feedback provided by AI tools was found to be helpful, and students noted that it contributed to improvement in their pronunciation and fluency skills by helping them recognize and correct their mistakes. In addition, students believed that personalized learning experiences created by AI tools, appropriate for their levels, increased their motivation to learn. However, students also highlight some limitations of AI tools. For instance, answers provided by AI are sometimes not natural and personal enough, which negatively impacts students' learning experience. Moreover, technical issues, such as AI tools not being able to answer complex questions correctly or giving irrelevant information, are another challenge faced by students.

To summarize, it can be concluded that AI tools have a significant potential in language learning, but they need some technical and pedagogical improvements. In the future, AI tools are expected to use more natural and fluent language, provide content more relevant to learners' interests and their unique contexts, and be able to answer more complex questions accurately.

### **Discussion, Conclusion and Recommendations**

This study investigates the impact of AI-based language learning tools on English learners' speaking skills. The findings reveal that AI significantly improves students' vocabulary, pronunciation, fluency, and grammar skills. In particular, AI is able to provide students with real-time and personalized feedback and this optimizes their learning process by allowing students to notice and correct their mistakes better. These results affirm the importance of technology and AI in language learning, as emphasized by researchers such as Godwin-Jones (2022), Rusmiyanto et al. (2023), and

Woo and Choi (2021). It has also become evident that AI tools increase students' motivation to learn a language, creating a more active and enthusiastic learning environment. This allows students to view language learning as an enjoyable process rather than a task which they have to conduct.

Despite the positive results, the research also reveals a range of problems that students experienced when using AI-based tools. Technical limitations, such as AI's difficulty in understanding complex questions and providing advanced pronunciation feedback, can be said to have created certain difficulties. These concerns are similar to other research that acknowledges the current limitations of AI technology in fully understanding and responding to advanced human speech (De la Vall & Araya, 2023; Zaghlool & Khasawneh, 2023).

These findings suggest that while AI tools can be a driving force in language learning, they require continuous improvements in their design and performance to suit the demands of EFL learners. Another important thing is the integration of AI tools into learners' daily routines and general language learning tactics. Many students use AI technologies on a daily basis in addition to or instead of traditional learning methods. This flexibility and convenience have emerged as important advantages, as students can practice speaking and receive quick feedback whenever they want. However, some students expressed limited benefits after reporting that AI tools could be adapted to their individual learning styles, interests and preferences. When comparing AI tools with traditional learning techniques, students consider AI to be more successful or more or less equivalent in improving speaking skills. AI's capacity to imitate real discussions and give immediate feedback was highly appreciated by students. However, the lack of human touch and occasional errors were cited as negatives. This highlights the importance and necessity of creating AI systems that not only provide accurate and relevant feedback but also engage students in a more human-like way, which highlights customization or in other words personalization.

Personalization and more specifically individualization has been one of the most challenging issues in education, but advances in AI-based technologies are promising in the sense that they can effectively solve this everlasting problem. The results of the current study have shown that artificial intelligence (AI)-based language learning tools can really trigger new horizons in language learning in this sense. These tools, which have potential in developing speaking skills, especially for foreign language learners, offer stakeholders the opportunity to further personalize the learning process. However, it should be indicated that AI technologies are still in the development phase and have certain limitations. For example, improving the natural language processing capabilities of AI tools is critical for the qualified understanding of students' complex questions and providing more advanced feedback. The research results show that AI-based language learning applications can help students develop their language skills more effectively. However, in order for this potential to be fully realized, artificial intelligence technologies need to be further developed and language learning environments need to adapt to these technologies.

### **Limitations and Future Research**

It could be indicated that the small sample size and demographic structure of the participants limit the generalizability of the findings. Additionally, the rapid development of artificial intelligence technologies may cause the findings of this study to lose validity over time. Future research should be conducted on a larger and more diverse sample, combining both qualitative and quantitative methods. Furthermore, the latest developments in artificial intelligence technologies should be closely followed and their effects on language learning should be examined from other angles for example regarding teacher dimensions.

### **Conflict of Interest**

The authors have no conflicts of interest related to the research, authorship and/or publication of this article.

### **Contribution of Authors**

The authors of the study contributed equally to all processes of the research.

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