



## PAPER

# ARTIFICIAL INTELLIGENCE IN LANGUAGE LEARNING: A CASE STUDY OF CHATGPT

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## Abstract

The rapid advancement of artificial intelligence has significantly transformed the field of language education. Among recent innovations, ChatGPT, a large language model developed by OpenAI, has emerged as a powerful tool capable of generating human-like language and supporting various aspects of language learning. This study investigates the role of ChatGPT in language learning through a qualitative case study approach, focusing on its linguistic capabilities, pedagogical potential, and inherent limitations.

The research analyzes ChatGPT-generated responses to EFL-oriented tasks targeting writing, grammar explanation, vocabulary development, and conversational interaction. The findings indicate that ChatGPT provides coherent, grammatically accurate, and contextually relevant language output, making it particularly effective in enhancing writing skills and lexical competence. Additionally, its capacity to offer immediate feedback and simplified explanations supports learner autonomy and personalized learning. However, the study also reveals limitations related to pragmatic accuracy, cultural sensitivity, and ethical concerns, including the risk of learner over-reliance and academic integrity issues. While ChatGPT demonstrates strong alignment with communicative and input-based language learning theories, it lacks genuine understanding and affective interaction characteristic of human instructors.

The study concludes that ChatGPT should be viewed as a complementary educational tool rather than a replacement for teachers. Its effective integration into language education requires pedagogical guidance and critical awareness. The findings contribute to the growing body of research on AI-assisted language learning and provide implications for educators and future research.

**Key words:** artificial intelligence, ChatGPT, language learning, EFL, AI-assisted language learning, computer-assisted language learning, foreign language anxiety

## INTRODUCTION

In recent years, artificial intelligence (AI) has become one of the most influential technological

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advancements across various domains, including education and linguistics. The rapid development of natural language processing (NLP) models has transformed the way languages are taught, learned, and analyzed. Among these innovations, ChatGPT, a large language model developed by OpenAI, has attracted significant attention due to its ability to generate human-like text, engage in interactive communication, and support language learning processes.

The integration of AI into language education is not a completely new phenomenon; however, the emergence of generative models such as ChatGPT marks a qualitative shift in computer-assisted language learning (CALL). Traditional CALL tools were mainly rule-based and limited in interaction, whereas ChatGPT operates on deep learning architectures, specifically transformer-based models, enabling it to process vast linguistic data and produce contextually appropriate responses. According to Brown et al. (2023), large language models demonstrate a new level of linguistic fluency that closely resembles human communicative competence.

From a theoretical perspective, ChatGPT can be examined through the lens of communicative competence theory proposed by Hymes (1972), which emphasizes not only grammatical accuracy but also sociolinguistic and pragmatic appropriateness. Recent studies by Kasneci et al. (2023) argue that ChatGPT shows considerable potential in supporting grammatical, lexical, and discourse-level competence, particularly in English as a Foreign Language (EFL) contexts. This suggests that AI-based tools are no longer limited to mechanical drills but actively participate in meaning-focused language use. Despite its growing popularity, the use of ChatGPT in language learning remains a subject of academic debate. While several researchers highlight its benefits in improving writing skills, vocabulary acquisition, and learner autonomy (Zhai, 2022; Kohnke & Moorhouse, 2023), others raise concerns regarding over-reliance, lack of critical thinking, and ethical issues such as academic integrity. These contrasting viewpoints indicate the need for a balanced and evidence-based analysis of ChatGPT's role in language education.

In addition to pedagogical and ethical debates, affective factors such as foreign language anxiety

(FLA) are increasingly relevant when evaluating AI-assisted language learning tools. Research in university settings suggests that anxiety can reduce learners' willingness to communicate and limit active participation, particularly among non-linguistic majors who face performance pressure and limited communicative experience. Islomov (2025a; 2025b) emphasizes that these affective constraints shape engagement and confidence in academic language use, implying that tools like ChatGPT should be examined not only for linguistic accuracy and accessibility but also for their potential influence on learners' emotional comfort and communicative readiness.

Furthermore, existing literature tends to focus on general AI applications in education, leaving a noticeable research gap in in-depth case studies of ChatGPT as a language learning tool. Particularly underexplored are its pedagogical limitations, cultural sensitivity, and pragmatic accuracy in real learning environments. This gap highlights the necessity of systematic research that evaluates both the opportunities and constraints of ChatGPT from linguistic and educational perspectives.

Therefore, the present study aims to investigate the role of ChatGPT in language learning, with a specific focus on its linguistic capabilities, pedagogical value, and potential risks. By analyzing ChatGPT as a case study, this research seeks to answer the following questions:

1. How does ChatGPT support different language skills in EFL learning?
2. What are the main advantages and limitations of using ChatGPT in language education?
3. To what extent can ChatGPT complement traditional teaching methods? By addressing these questions, this study contributes to the growing body of research on AI-assisted language learning and provides practical implications for educators, researchers, and policymakers.

## METHODOLOGY

This study adopts a qualitative research design to explore the role of ChatGPT in language learning. A qualitative approach is particularly suitable for this research as it allows for in-depth analysis of linguistic output, pedagogical functionality, and contextual appropriateness rather than numerical measurement alone. According to Creswell (2014),

qualitative methods are effective in examining complex educational phenomena such as learner–AI interaction.

The primary data source of this study consists of ChatGPT-generated responses to a series of language-learning prompts designed to assess different language skills, including writing, grammar explanation, vocabulary usage, and speaking simulation. These prompts were modeled after typical EFL classroom tasks at B1–B2 levels. The outputs were then analyzed based on accuracy, coherence, pragmatic appropriateness, and pedagogical usefulness.

To ensure analytical rigor, the study applies content analysis as the main analytical method. ChatGPT responses were examined and categorized according to linguistic criteria derived from communicative competence theory (Hymes, 1972) and cognitive language learning principles. In addition, a comparative perspective was used by contrasting AI-assisted learning outcomes with traditional teacher-led explanations as described in existing pedagogical literature.

Previous empirical studies by Kohnke, Moorhouse, and Zou (2023) served as a methodological reference, particularly in evaluating AI-generated language explanations. This methodological framework enables a systematic investigation of ChatGPT's capabilities while acknowledging its limitations as a non-human language agent.

## RESULTS

The analysis revealed that ChatGPT demonstrates high effectiveness in supporting several core language skills, particularly writing and vocabulary development. In writing tasks, ChatGPT consistently produced well-structured, coherent, and grammatically accurate texts that aligned with заданные communicative purposes. This finding supports the claims of Zhai (2022), who argues that generative AI significantly enhances learners' exposure to high-quality input.

In terms of grammar instruction, ChatGPT provided clear explanations accompanied by relevant examples. The model was especially effective in simplifying complex grammatical concepts, making them accessible to intermediate learners. This aligns with Kasneci et al. (2023),

who found that AI systems can function as on-demand tutors by offering immediate feedback and clarification.

Vocabulary learning outcomes also showed positive results. ChatGPT was able to generate synonyms, contextualized examples, and usage explanations, contributing to lexical depth rather than surface memorization. However, minor inaccuracies were observed in idiomatic usage and culturally specific expressions, indicating partial limitations in pragmatic competence. Regarding speaking skills, ChatGPT simulated conversational interaction effectively by maintaining discourse coherence and turn-taking. Although it lacks authentic pronunciation and emotional nuance, its dialogic structure supports fluency development through repeated practice.

## DISCUSSION

The findings suggest that ChatGPT aligns closely with input-based and interactionist theories of language acquisition. From Krashen's Input Hypothesis perspective, ChatGPT provides comprehensible input tailored to learner needs. Moreover, its interactive nature supports Long's Interaction Hypothesis by enabling negotiation of meaning through follow-up questions and clarification.

However, despite these strengths, ChatGPT does not fully replicate human communicative competence. While grammatical and lexical accuracy is generally high, pragmatic and cultural appropriateness occasionally falls short. This confirms the observations of Bender et al. (2021), who caution that large language models generate form-based fluency without genuine understanding.

Ethical and pedagogical concerns also emerge in the discussion. Over-reliance on ChatGPT may reduce learners' critical thinking and originality, particularly in academic writing contexts. Scholars such as Rudolph et al. (2023) emphasize the importance of guided AI use rather than unrestricted dependence. Therefore, ChatGPT should be positioned as a supportive tool, not a replacement for teachers.

The findings can also be interpreted through the lens of foreign language anxiety research, particularly regarding how supportive interaction

and feedback shape learner confidence. Islomov (2025a) reports that anxiety-reduction strategies—such as gradual exposure to speaking tasks, collaborative interaction, and formative feedback—can substantially strengthen university students' communicative confidence. In a related discussion, Islomov (2025b) highlights that affective barriers may limit participation even when learners have sufficient linguistic knowledge. In this respect, ChatGPT's non-judgmental, on-demand feedback may help reduce anxiety in certain learning situations; however, these benefits are most likely when AI use is pedagogically guided to prevent over-reliance and to maintain learner agency.

Compared to traditional teaching methods, ChatGPT offers accessibility, immediacy, and personalization. However, it lacks affective feedback, classroom management, and moral judgment—elements that remain uniquely human. This reinforces the view that AI functions best within a blended learning framework.

## CONCLUSION

This study examined the role of ChatGPT in language learning through a qualitative case study approach. The findings demonstrate that ChatGPT possesses significant potential as an AI-assisted language learning tool, particularly in developing writing, grammar, vocabulary, and conversational skills. Its ability to generate coherent and contextually relevant language makes it a valuable educational resource in EFL contexts.

Nevertheless, the study also highlights important limitations related to pragmatic competence, cultural sensitivity, and ethical use. ChatGPT cannot fully replace human instructors but can effectively complement traditional teaching when used responsibly and strategically.

In conclusion, ChatGPT represents a transformative development in language education, offering new opportunities for learner autonomy and personalized instruction. Future research should focus on longitudinal studies, learner perception analysis, and cross-linguistic evaluations to further understand the long-term impact of AI in language learning.

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