



USING AI TOOLS TO DEVELOP WRITING ABILITIES OF INTERMEDIATE LEARNERS

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<https://doi.org/10.5281/zenodo.20270478>

Abstract: This study investigates the impact of artificial intelligence–based tools on the improvement of English writing skills among 160 university students in Vietnam. With AI technologies becoming more widely integrated into educational settings, examining their role in language learning has emerged as a significant research focus. The study particularly examines how various forms of AI support contribute to enhancing students’ writing performance and overall language proficiency. The research analyzed five key independent variables: the type of AI tool used, including ChatGPT, Grammarly, and QuillBot; the degree of student interaction with these tools; the teaching methods implemented by instructors; the learners’ initial English proficiency level; and the length of time the AI tools were used throughout the study. These variables were selected because each may significantly affect the success of AI-assisted learning and influence writing achievement in different ways. To examine the relationship between these independent variables and students’ improvement in writing, the researchers applied multiple regression analysis. This statistical technique enabled them to measure the relative impact of each factor while controlling for the effects of the others.

Keywords: artificial intelligence, teaching, learner-centered roles, learning environments

AI has made substantial advancements in recent years, transforming various sectors, including education. The field of language learning, particularly EFL instruction, has experienced significant changes with the integration of AI technologies. Traditionally, language learning relied heavily on direct teacher involvement and manual feedback; however, AI tools now offer opportunities to enhance and personalize the learning experience in ways previously unimagined (Song, 2023). The application of AI in writing instruction, in particular, has garnered increasing attention due to its potential to offer individualized feedback, facilitate learner autonomy, and provide scalable instruction for large groups of students (Hwang et al., 2023). The rapid advancement of artificial intelligence (AI) has generated substantial changes across numerous sectors, and education—particularly language learning—has experienced significant transformation as a result (Chen et al., 2022). In recent years, AI-powered applications such as ChatGPT, Grammarly, QuillBot, and other intelligent writing assistants have created new opportunities for teaching and learning English writing skills. These technologies are especially relevant because writing is widely regarded as one of the most demanding competencies for second-language (L2) learners, requiring the simultaneous use of grammar, vocabulary, organization, coherence, and critical thinking (Qassrawi & Al Karasneh, 2025; Jamshed et al., 2024).

In contrast to traditional classroom instruction, AI-based tools can provide instant feedback, personalized recommendations, and ongoing opportunities for practice. These features make them valuable resources for both students and teachers who are looking for more effective and flexible ways to enhance writing skills. For instance, grammar-checking

systems can immediately detect and correct language mistakes, paraphrasing tools can support students in improving sentence structure, and generative AI platforms such as ChatGPT can assist learners with brainstorming, drafting, and developing ideas. Consequently, these technologies are gradually transforming the methods through which writing is taught and practiced across various educational settings.

AI-powered writing applications such as Grammarly, Write & Improve, and ChatGPT have significantly transformed the way EFL (English as a Foreign Language) students approach academic writing. These technologies provide learners with immediate feedback, grammar correction, vocabulary enhancement, style recommendations, and interactive writing support, enabling students to improve their writing skills more effectively and progress according to their individual learning pace (Mahmud, 2023). Unlike traditional methods of writing instruction, AI-based systems offer continuous assistance outside the classroom environment, allowing learners to practice independently and receive personalized guidance whenever needed.

One of the most important advantages of AI-powered writing tools is their adaptive capability. Through advanced machine learning algorithms and natural language processing technologies, these tools are able to analyze students' writing patterns, identify strengths and weaknesses, and provide customized feedback based on individual learner needs (Wale, 2024). For example, grammar-checking tools can instantly detect sentence-level errors, while AI chatbots can assist students with idea generation, essay organization, paraphrasing, and vocabulary selection. As a result, AI technologies have the potential not only to support existing pedagogical practices but also to introduce innovative and learner-centered approaches to teaching writing. In many educational contexts, these tools encourage greater learner autonomy, improve motivation, and reduce anxiety related to writing in a foreign language.

Despite these benefits, the integration of AI into EFL writing instruction also presents several challenges and concerns. One major issue is the possibility of students becoming overly dependent on AI systems, which may negatively affect the development of critical thinking, self-editing, and independent writing abilities (Aljuaid, 2024). When learners rely excessively on automated corrections and suggestions, they may fail to fully understand their mistakes or develop the analytical skills necessary for effective writing. Additionally, AI tools often struggle to accurately interpret cultural references, figurative expressions, humor, idiomatic language, and emotional tone, which are essential components of authentic communication in English (Selim, 2024).

Another limitation is that, although AI systems are highly effective at correcting grammatical and structural errors, they are less capable of fostering creativity, originality, and personal voice in students' writing (Wang, 2024). Writing is not only a technical process but also a form of self-expression that reflects individual experiences, emotions, and cultural perspectives. Overreliance on AI-generated suggestions may therefore result in writing that appears mechanically correct but lacks creativity and authenticity. Furthermore, concerns regarding academic integrity, plagiarism, and ethical use of AI technologies in education continue to grow as these tools become more accessible to students worldwide.

Although the body of research on AI-assisted EFL writing instruction has expanded considerably in recent years, several important gaps remain in the literature. In particular,

there is still limited research examining the long-term effects of AI use on students' creativity, independent learning strategies, cultural awareness, and overall language development. Moreover, the influence of AI tools on learners from different educational and cultural backgrounds has not yet been sufficiently explored. Future studies should therefore investigate how AI technologies affect students' motivation, confidence, and writing identity over extended periods of time.

This paper aims to examine both the opportunities and the challenges associated with the use of AI tools in EFL writing instruction. Drawing on current literature and empirical evidence, the study explores the impact of AI technologies on writing pedagogy, students' writing performance, and the difficulties learners experience when integrating these tools into the learning process. In addition, the paper seeks to evaluate the extent to which AI can contribute to more personalized, efficient, and engaging writing instruction while also identifying the limitations that educators should consider. Ultimately, the study provides a comprehensive overview of the current role of AI in EFL writing education and offers practical recommendations for teachers, students, and educational institutions regarding the effective and responsible use of AI-powered writing technologies. A growing body of research indicates that learners often face persistent difficulties in English writing. Common challenges include grammatical inaccuracy, limited vocabulary range, weak sentence structure, lack of coherence between ideas, and insufficient organization in longer compositions (Liu et al., 2023). Many students also struggle with confidence and motivation, particularly when they receive delayed or limited feedback from instructors. In this context, AI technologies are expected to provide innovative solutions by offering comprehensive and individualized support that was previously possible only through direct teacher intervention (Sakmiankaew et al., 2024).

Consequently, additional research is necessary to examine the real-world impact of AI technologies on students' writing achievement and to determine the most effective strategies for integrating these tools into educational practice. A deeper understanding of these issues is particularly important for teachers, curriculum developers, and policymakers who aim to incorporate AI into language education in a responsible, ethical, and pedagogically effective manner. As AI technologies continue to evolve rapidly, educational institutions must also consider how to balance technological support with the development of students' independent thinking, creativity, and academic integrity.

During the last decade, artificial intelligence-based writing technologies have undergone remarkable transformation, progressing from simple grammar-correction programs to advanced digital assistants capable of providing comprehensive writing support (Yılmaz Virlan & Tomak, 2024). Earlier generations of writing software were mainly designed to identify spelling mistakes, punctuation problems, and basic grammatical errors. However, contemporary AI systems are now able to perform much more complex tasks, including analyzing sentence structure, improving coherence and cohesion, suggesting more appropriate vocabulary, adapting tone and style, and even generating complete paragraphs or essays based on user prompts.

Modern AI tools such as Grammarly, QuillBot, and ChatGPT can support learners throughout every stage of the writing process, from brainstorming and outlining ideas to revising and final editing. These technologies not only help students reduce language errors but also encourage more active engagement with writing tasks by making the process faster, more



interactive, and more personalized. For many EFL learners, AI tools provide an accessible learning environment where they can practice writing independently, receive immediate feedback, and experiment with language without fear of negative evaluation.

The integration of artificial intelligence into writing instruction has progressed considerably, moving beyond simple grammar- and spell-checking functions toward more advanced systems capable of delivering immediate feedback, personalized guidance, and adaptive learning recommendations. Contemporary AI-powered platforms such as Google Docs and Writerly assist students in improving their academic writing performance while also preparing them for future professional and digital communication demands (Wale, 2024). These technologies enable learners to revise their work more efficiently, strengthen language accuracy, and develop greater confidence in the writing process. Nevertheless, despite the growing capabilities of AI systems, researchers emphasize that AI should complement rather than replace traditional writing instruction, making balanced integration between technology and teacher guidance essential (Aljuaid, 2024).

Recent studies have increasingly focused on the influence of AI on students' writing abilities, particularly in relation to error correction, individualized feedback, and learner engagement. AI-based tools such as ChatGPT provide detailed suggestions regarding grammar, vocabulary usage, organization, coherence, and idea development, thereby helping students become more actively involved in the writing process (Song, 2023). Similarly, Smart RoamLingo supports learners by offering personalized feedback that improves coherence, sentence fluency, and language use (Hwang et al., 2023). Research findings indicate that AI technologies can provide targeted support throughout different stages of writing, enabling learners to identify weaknesses, revise drafts more effectively, and ultimately improve the overall quality of their written work (Zhao, 2022).

In addition to improving technical writing skills, AI tools contribute to creating a more interactive, productive, and engaging learning environment. Although teachers continue to play a central role in guiding instruction, motivating students, and developing higher-order thinking skills, AI technologies expand opportunities for learners to participate more actively and independently in writing activities (Utami et al., 2023; Phan, 2023). For example, automated feedback systems encourage students to self-correct grammatical and structural errors before submitting assignments, promoting greater learner autonomy and reflective learning practices. At the same time, AI reduces teachers' workload related to repetitive grammar correction and mechanical editing tasks, allowing educators to focus more on advanced aspects of writing instruction, such as critical analysis, argument development, creativity, essay organization, and academic research writing (Tang, 2023).

Furthermore, AI-assisted learning environments often increase students' motivation and confidence because they provide immediate support without the fear of criticism that some learners may experience in traditional classroom settings. Students can practice writing repeatedly, experiment with different sentence structures, and receive instant feedback tailored to their individual proficiency levels. This personalized learning experience is particularly beneficial for EFL learners, who may require additional support outside the classroom to strengthen language competence and writing fluency.

Therefore, the integration of AI into writing instruction has the potential to significantly enhance the teaching and learning process by offering personalized feedback, encouraging



student engagement, and supporting the development of stronger writing skills. As language education continues to evolve in response to technological advancement, AI is expected to become an increasingly important component of effective writing pedagogy. However, successful implementation will require educators to use these technologies thoughtfully and responsibly, ensuring that AI supports rather than diminishes students' creativity, independent thinking, and authentic language development.

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