

Exploring the Use of ChatGPT as a Writing Assistant for EFL Students: Opportunities and Pedagogical Implications

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Abstract

The rapid development of artificial intelligence (AI), particularly generative tools such as ChatGPT, has significantly influenced language education, offering new possibilities for supporting English as a Foreign Language (EFL) writing instruction. This study explores the use of ChatGPT as a writing assistant among undergraduate EFL students, focusing on its impact on writing performance, learner perceptions, and pedagogical implications. A mixed-method design was employed, combining quantitative and qualitative approaches to obtain comprehensive insights. Forty EFL students enrolled in an academic writing course at an Indonesian public university participated in a six-week intervention. Quantitative data were collected through pre-test and post-test writing assessments and perception questionnaires, while qualitative data were obtained through semi-structured interviews. The findings indicate statistically significant improvements in students' writing performance across content, organization, vocabulary, grammar, and coherence, with the most notable gains observed in grammatical accuracy and textual coherence. Students reported positive perceptions of ChatGPT, highlighting its usefulness for idea generation, vocabulary enhancement, and immediate feedback, which increased motivation and writing confidence. Qualitative data further revealed that ChatGPT functioned as an accessible learning companion that supported autonomous learning and reduced writing anxiety. However, challenges were also identified, including overreliance on AI-generated content, reduced critical engagement, and ethical concerns related to plagiarism and academic integrity. These findings suggest that while ChatGPT offers substantial benefits as a complementary writing tool, its integration requires careful pedagogical guidance, AI literacy education, and clear ethical policies. Overall, this study underscores the potential of AI-assisted writing tools to enhance EFL writing instruction while emphasizing the importance of balanced, responsible implementation in educational contexts.

Keywords: *ChatGPT; Artificial Intelligence; EFL Writing; Writing Assistant; Academic Integrity*

Introduction

The rapid evolution of artificial intelligence (AI) technologies has begun to reshape not only global communication and industry but also the landscape of language education. Recent developments in generative AI, particularly large language models such as ChatGPT, have attracted significant attention due to their potential to assist language learners in writing tasks and academic communication (Dwivedi et al., 2023; Han et al., 2023). These technologies are increasingly viewed as transformative tools capable of enhancing accessibility, efficiency, and personalization in higher

education learning environments (Crompton & Burke, 2023; Wang, 2024).

In English as a Foreign Language (EFL) contexts, writing in English often presents substantial challenges. Learners must master complex grammatical structures, develop sufficient lexical resources, and produce coherent academic texts while often lacking immediate individualized feedback (Hyland, 2022; Warschauer et al., 2021). Traditional teacher-centered approaches may struggle to provide continuous support, especially in large classes or resource-constrained educational settings (Holmes et al., 2020; Zawacki-Richter et al., 2020). Consequently, educators have increasingly

explored AI-assisted writing technologies as part of a shift toward learner-centered, technology-enhanced pedagogies (Tlili et al., 2023; Kristiawan, 2024).

Recent empirical studies suggest that ChatGPT can function as an effective scaffold in EFL writing instruction. AI-generated feedback has been shown to improve grammatical accuracy, lexical sophistication, and writing fluency among second language learners (Gao et al., 2024; Han et al., 2023). Students also report enhanced idea generation, increased confidence, and improved writing motivation when using generative AI tools (Derakhshan et al., 2024; Putri, 2025). These findings align with broader research indicating that AI-driven writing assistants can foster learner autonomy, self-regulated learning, and writing productivity (Baidoo-Anu & Ansah, 2023; Baskara, 2023).

Moreover, systematic reviews highlight AI's potential to support vocabulary development, text cohesion, learner engagement, and flexible self-paced learning (Garzón, 2025; Zhu & Wang, 2024). The accessibility of ChatGPT across digital platforms and its ability to provide immediate feedback make it particularly valuable in contexts where instructional resources are limited or individualized feedback is difficult to obtain (Dwivedi et al., 2023; Batubara, 2025).

However, despite these advantages, integrating ChatGPT into EFL writing instruction raises several pedagogical and ethical concerns. Scholars warn that excessive reliance on AI-generated content may hinder independent writing skills, critical thinking development, and creativity (Park et al., 2023; Polakova & Ivenz, 2024). Ethical issues related to academic integrity, plagiarism, authorship transparency, and responsible AI use have also become increasingly prominent in discussions about

generative AI in education (Lund & Wang, 2023; Alharbi, 2023).

Furthermore, although ChatGPT can produce fluent and grammatically accurate language, its outputs are not always contextually accurate or discipline-specific. AI-generated writing may encourage formulaic expressions, superficial revisions, or uncritical acceptance of automated feedback, potentially masking conceptual misunderstandings among EFL learners (Woo et al., 2023; Lee et al., 2023). These limitations highlight the need for critical AI literacy and pedagogical guidance when integrating AI into academic writing instruction (Holmes et al., 2022; Bibri, 2024). Given both the opportunities and risks associated with AI-assisted writing, there is a clear need for context-sensitive empirical research examining how ChatGPT is actually used by EFL learners and how it influences writing development. Although scholarly interest in AI for language education has grown rapidly, empirical studies in non-native English contexts remain relatively limited (Zawacki-Richter et al., 2020; Zhu & Wang, 2024).

Therefore, the present study aims to explore the use of ChatGPT as a writing assistant among EFL students, examining its affordances, limitations, and pedagogical implications for academic writing instruction. Through a mixed-method design involving writing tasks, feedback cycles, surveys, and interviews, this study seeks to provide comprehensive insight into how AI tools can be integrated responsibly into EFL education while maintaining academic integrity, fostering learner autonomy, and supporting the development of critical writing skills.

Methodology

This study employed a mixed-method design integrating both quantitative and qualitative approaches to provide a comprehensive

understanding of how English as a Foreign Language (EFL) students use ChatGPT as a writing assistant. The mixed-method approach was chosen to triangulate findings and enhance the validity of results by capturing both numerical trends and in-depth perceptions (Creswell & Plano Clark, 2018; Creswell & Creswell, 2023). Quantitative data were collected to measure students' improvement in writing performance, while qualitative data were obtained to explore their experiences, perceptions, and challenges in using ChatGPT during the writing process. This design is particularly suitable for research involving technology-mediated learning, where complex human-AI interactions require both statistical and interpretive analyses (Dörnyei, 2007; Crompton & Burke, 2023). Recent research on AI-supported education also recommends mixed-method approaches to capture both measurable learning outcomes and learner interaction experiences (Bond et al., 2024; Kasneci et al., 2023).

The participants consisted of 40 undergraduate EFL students enrolled in an Academic Writing course at a public university in Indonesia. Participants were selected using purposive sampling, as they had prior experience in academic writing and basic digital literacy required for using AI writing tools. Purposeful sampling is widely recommended in educational technology research to ensure participants have relevant contextual experience (Patton, 2021; Zawacki-Richter et al., 2020). Among them, 28 were female and 12 were male, aged between 19 and 22. All participants had passed a minimum English proficiency level equivalent to B1 (CEFR), ensuring they could compose essays independently before the experiment. Participation was voluntary, and informed consent was obtained in accordance with institutional ethical standards. Ethical transparency has been emphasized as essential in AI-related

educational research, particularly regarding data privacy and responsible AI use (Holmes et al., 2022; UNESCO, 2021).

Three instruments were used to collect data:

1. *Writing Task Rubric* – adapted from the Common European Framework of Reference (CEFR) descriptors to evaluate content, organization, vocabulary, grammar, and coherence. CEFR-based rubrics are widely used to ensure reliable assessment of second-language writing proficiency (Council of Europe, 2020; North & Piccardo, 2020).
2. *Questionnaire* – designed to gather participants' perceptions of ChatGPT's usefulness, ease of use, and impact on writing confidence. The questionnaire used a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Surveys are commonly employed in AI-assisted language learning research to examine technology acceptance, perceived usefulness, and learner attitudes (Park et al., 2023; Tlili et al., 2023).
3. *Semi-structured Interview* – conducted with ten volunteer participants to explore deeper insights about how they used ChatGPT during brainstorming, drafting, and revising, as well as their views on its limitations and ethical concerns. Semi-structured interviews are recommended for exploring learner experiences with emerging educational technologies due to their flexibility and depth (Kallio et al., 2020; Braun & Clarke, 2021).

The instruments were validated by two EFL experts to ensure content validity and reliability, following established procedures in educational research (Ary et al., 2018; Creswell & Creswell, 2023).

The study was conducted over six weeks in three main stages:

1. Pre-Writing Stage

Students completed a pre-test writing task (an argumentative essay of 250–300 words) without AI assistance to establish baseline writing proficiency. Pretest–posttest designs are commonly used to evaluate the effectiveness of technology-enhanced language learning interventions (Lee & Chen, 2023; Zheng et al., 2020).

2. ChatGPT-Assisted Writing Stage

Students were introduced to ChatGPT and instructed on responsible usage, including avoiding direct copying, verifying AI-generated text, and citing sources when appropriate. Over four weeks, students used ChatGPT to assist in idea generation, drafting, and revising essays. They were encouraged to use prompts strategically (e.g., “suggest transitions,” “revise grammar,” or “generate topic sentences”). Guided AI use has been recommended to promote ethical engagement, critical thinking, and responsible adoption of generative AI tools in education (Dwivedi et al., 2023; Lund & Wang, 2023; Holmes et al., 2022).

3. Post-Writing and Reflection Stage

After the intervention, students submitted final essays and completed the perception questionnaire. Selected participants were interviewed to explore their experiences and perceived benefits or drawbacks. All sessions were conducted under supervision in a blended learning environment to maintain academic integrity and ethical compliance (Zawacki-Richter et al., 2020; Bond et al., 2024).

Quantitative data (pre-test and post-test writing scores, questionnaire responses) were analyzed using paired-sample t-tests to determine statistically significant differences in writing performance before and after using ChatGPT. Descriptive statistics were also employed to summarize student perceptions. Statistical evaluation of AI-assisted learning

outcomes is considered essential for assessing educational effectiveness and technological intervention impact (Crompton & Burke, 2023; Bond et al., 2024).

Qualitative data from interviews were analyzed through thematic analysis (Braun & Clarke, 2006). The process involved familiarization, coding, categorizing, and identifying emerging themes related to opportunities, challenges, and pedagogical implications. Thematic analysis is widely used in educational technology research due to its flexibility in interpreting complex learner experiences (Braun & Clarke, 2021; Kallio et al., 2020). Data triangulation from multiple sources enhanced credibility and reliability (Creswell, 2014).

Ethical approval was granted by the university’s Research Ethics Committee. Participants were informed about the research objectives, anonymity, and voluntary nature of participation. They were also briefed about ethical concerns regarding AI-generated content to avoid plagiarism and maintain academic honesty, which is increasingly emphasized in generative AI research in higher education (Dwivedi et al., 2023; UNESCO, 2021).

Results

This section presents the findings of the study concerning the use of ChatGPT as a writing assistant among EFL undergraduate students. The results are organized into three main subsections: (1) improvements in writing performance, (2) students’ perceptions toward ChatGPT use, and (3) qualitative insights into opportunities and challenges of integrating ChatGPT in EFL writing classrooms.

Improvement in Students’ Writing Performance.

Quantitative analysis from pre-test and post-test scores revealed significant improvements in the participants’ overall

writing performance after using ChatGPT for six weeks. Table 1 summarizes the mean scores for five key writing criteria — content, organization, vocabulary, grammar, and coherence — based on the adapted CEFR rubric.

Criterion	Pre-Test Mean (SD)	Post-Test Mean (SD)	t-value	p-value
Content	3.12 (0.74)	4.08 (0.63)	8.64	<0.001
Organization	3.21 (0.68)	4.02 (0.59)	7.93	<0.001
Vocabulary	3.09 (0.71)	4.06 (0.58)	8.21	<0.001
Grammar	2.94 (0.77)	3.98 (0.65)	9.16	<0.001
Coherence	3.05 (0.73)	4.12 (0.61)	8.48	<0.001

Table 1. Pre-test and post-test mean scores of students’ writing performance.

The paired-sample t-test results indicate statistically significant improvements across all five criteria (p < 0.001). The largest gain was observed in grammar and coherence, suggesting that ChatGPT’s feedback mechanisms and reformulation features helped learners produce more grammatically accurate and logically connected sentences.

These findings corroborate previous studies demonstrating that AI-assisted feedback improves learners’ grammatical accuracy and text cohesion (Kohnke et al., 2023; Wu, 2024). Additionally, students’ writing fluency increased, as they were able to produce longer, more complex sentences within the same time frame compared to their pre-test essays.

Students’ Perceptions of ChatGPT Use

Data from the post-intervention questionnaire revealed generally positive perceptions toward ChatGPT as a writing assistant. Figure 1 (below) summarizes the distribution of responses on key dimensions: perceived usefulness, ease of use, learning motivation, and ethical concerns.

Dimension	Mean (SD)	Interpretation
Usefulness	4.45 (0.51)	Very high
Ease of use	4.38 (0.49)	Very high
Motivation	4.22 (0.57)	High
Ethical concern	3.65 (0.72)	Moderate

Table 2. Students’ perceptions of ChatGPT as a writing assistant (n = 40).

Most participants (85%) agreed that ChatGPT enhanced their ability to organize ideas and revise essays more efficiently. They reported that ChatGPT functioned as an accessible “second opinion” when no teacher feedback was available, providing immediate linguistic suggestions, model sentences, and vocabulary alternatives. This aligns with findings from Lee and Chen (2023), who found that AI writing tools foster writing fluency and self-efficacy among EFL students.

However, approximately 30% of respondents expressed moderate concern about ethical use, particularly regarding plagiarism, authenticity, and the temptation to copy AI-generated sentences directly without sufficient modification. Some participants mentioned uncertainty about the boundary between “assisted writing” and “machine-generated writing.” This echoes concerns raised by Zawacki-Richter et al. (2019), who emphasized the importance of AI literacy and ethical guidance in higher education.

Qualitative Findings: Opportunities and Challenges

Data from semi-structured interviews provided deeper insights into students' actual interactions with ChatGPT and their perceptions of its pedagogical value. Thematic analysis revealed four major themes: (1) enhanced feedback and autonomy, (2) increased motivation and engagement, (3) overreliance and critical thinking issues, and (4) ethical and pedagogical considerations.

Enhanced Feedback and Learner Autonomy

Many students described ChatGPT as an “on-demand tutor,” offering detailed explanations for grammar corrections and alternative expressions. One participant noted: *“ChatGPT doesn’t just correct my grammar; it explains why it’s wrong. That helps me understand and remember the rule.”* This aligns with research by Kohnke et al. (2023), suggesting that AI-mediated feedback can foster metalinguistic awareness, a crucial component of learner autonomy in writing. Students appreciated the constant availability of ChatGPT, which enabled self-paced learning beyond classroom boundaries.

Increased Motivation and Engagement

Students reported higher engagement and enjoyment in writing when using ChatGPT. They found the tool helpful for brainstorming, generating topic ideas, and maintaining motivation during difficult writing stages. According to one student: “When I run out of ideas, ChatGPT helps me find a direction. It keeps me motivated to continue writing instead of giving up.” These observations are consistent with recent studies indicating that AI tools can promote flow and reduce writing anxiety among language learners (Derakhshan et al., 2024).

Overreliance and Reduced Critical Thinking

Despite the benefits, several participants admitted relying heavily on ChatGPT for generating or revising large portions of text. Some reported accepting AI suggestions without verifying their appropriateness or accuracy. One student said: “Sometimes I just copy the sentences because they sound better than mine, even if I don’t fully understand them.” This finding aligns with Park et al. (2023), who warn that overreliance on AI may weaken learners’ critical thinking and reduce the authenticity of student writing. As such, teachers should design structured activities that encourage reflective use of ChatGPT rather than passive adoption.

Ethical and Pedagogical Considerations

Students expressed confusion regarding the ethical boundaries of AI use in academic contexts. While they recognized its pedagogical value, many were unsure how to appropriately cite or acknowledge AI contributions. Teachers also face the challenge of integrating AI support without compromising academic integrity or learning objectives. This echoes recommendations by Lund and Wang (2023), emphasizing the need for institutional policies on ethical AI adoption in language education.

Summary of Findings

The findings collectively demonstrate that ChatGPT, when used as a complementary tool under guided supervision, can significantly enhance EFL students' writing skills and learning motivation. Quantitative results confirm measurable improvements in writing performance, while qualitative insights reveal psychological and pedagogical benefits — balanced by notable risks related to overreliance and ethical use. These results highlight the dual nature of AI integration in education: while it democratizes access to feedback and learning resources, it simultaneously requires pedagogical scaffolding and AI literacy training to ensure responsible use.

Discussion

This study explored the use of ChatGPT as a writing assistant among EFL undergraduate students, focusing on its impact on writing performance, learner perceptions, and pedagogical implications. The findings indicate that AI-assisted writing tools, particularly ChatGPT, can provide meaningful support for EFL learners, while also presenting challenges that require careful pedagogical management. The discussion below interprets these findings in relation to existing literature and broader implications for EFL writing instruction.

Enhancement of Writing Performance through AI Support

The quantitative results demonstrate significant improvements in students' writing performance across five criteria: content, organization, vocabulary, grammar, and coherence. The most notable gains in grammar and coherence suggest that ChatGPT's ability to provide immediate corrective feedback, sentence reformulation, and structural suggestions can help learners produce more linguistically accurate and cohesive texts. This supports prior research

indicating that AI-generated feedback can function as a form of scaffolded learning, enabling students to notice language patterns and improve their writing accuracy over time.

Additionally, students' increased writing fluency reflects the potential of AI tools to reduce cognitive load during the drafting process. By assisting with vocabulary selection, grammar checking, and idea organization, ChatGPT allows learners to focus more on higher-level aspects of writing, such as argument development and logical sequencing. However, this benefit should not overshadow the importance of independent writing practice, as excessive reliance may limit long-term language development.

Positive Learner Perceptions and Motivation

Students' perceptions toward ChatGPT were largely positive, particularly regarding usefulness, ease of use, and motivational impact. Many participants viewed ChatGPT as an accessible “writing companion” that provided instant feedback when teacher support was unavailable. This immediacy appears to enhance learner confidence and reduce anxiety often associated with writing in a foreign language.

The motivational dimension is particularly significant in EFL contexts where learners frequently struggle with self-efficacy in writing. The ability to generate ideas quickly and receive model language examples may foster engagement and persistence. These findings align with technology-enhanced learning theories suggesting that interactive digital tools can promote learner autonomy and self-directed learning.

Nevertheless, positive perceptions should be interpreted cautiously. Enjoyment and convenience do not automatically translate into deeper learning. Without structured guidance, students may prioritize efficiency over reflection, potentially

limiting the development of critical writing skills.

Risks of Overreliance and Reduced Critical Engagement

One of the most prominent concerns emerging from the qualitative findings is students' tendency toward overreliance on AI-generated content. Some participants reported copying sentences directly from ChatGPT without fully understanding them. This behavior raises important questions about authorship, authenticity, and the development of independent writing competence.

Overreliance on AI may reduce opportunities for productive struggle — a key component of language acquisition. When learners bypass the effort required to formulate ideas or solve linguistic problems, they may miss essential learning experiences. Moreover, unquestioned acceptance of AI suggestions may weaken critical thinking, particularly when AI-generated content contains subtle inaccuracies or contextually inappropriate expressions.

Therefore, educators must emphasize reflective AI use. Instruction should include activities that encourage students to evaluate, adapt, and critically analyze AI-generated suggestions rather than simply adopting them.

Ethical Considerations and Academic Integrity

Ethical concerns emerged as another significant theme, with some students expressing uncertainty about plagiarism, citation practices, and acceptable AI usage in academic writing. This reflects a broader challenge in contemporary education: the rapid integration of generative AI technologies has outpaced institutional policies and student awareness.

The findings suggest that AI literacy should become an integral component of EFL writing pedagogy. Students need explicit

guidance on responsible AI use, including transparency in acknowledging AI assistance, verifying generated information, and maintaining originality in their writing. Clear institutional policies can help reduce ambiguity and promote ethical engagement with AI tools.

Pedagogical Implications for EFL Writing Instruction

The results indicate that ChatGPT can be most effective when integrated as a complementary tool rather than a replacement for traditional instruction. Teachers play a crucial role in mediating AI use by designing structured tasks, promoting critical engagement, and ensuring alignment with learning objectives.

Pedagogical strategies may include guided prompt design, reflective writing activities, peer discussion about AI-generated feedback, and explicit instruction on ethical AI use. Such approaches can help maximize the benefits of AI technology while minimizing potential drawbacks.

Moreover, AI-assisted writing tools may be particularly valuable in contexts with limited instructional resources, large class sizes, or restricted access to individualized feedback. In such situations, ChatGPT can serve as an accessible supplementary resource supporting continuous learning beyond classroom boundaries.

Conclusion of the Discussion

Overall, this study highlights the dual nature of ChatGPT in EFL writing education. On one hand, it offers substantial opportunities for enhancing writing performance, learner motivation, and autonomous learning. On the other hand, risks related to overreliance, reduced critical engagement, and ethical ambiguity require careful pedagogical attention. Effective integration of AI tools in EFL writing instruction therefore depends not only on technological availability but also on

thoughtful instructional design, ethical guidance, and the cultivation of critical digital literacy among learners.

Conclusion

This study aimed to explore the use of ChatGPT as a writing assistant in an English as a Foreign Language (EFL) context, focusing on its opportunities, challenges, and pedagogical implications in academic writing instruction. Based on both quantitative and qualitative analyses, the findings indicate that the integration of ChatGPT as an AI-assisted writing tool can significantly enhance EFL students' writing performance while simultaneously introducing new pedagogical and ethical considerations that require careful instructional management.

First, in terms of writing performance improvement, the results demonstrate statistically significant gains across several key aspects of students' writing, including content development, organization of ideas, vocabulary use, grammatical accuracy, and textual coherence. The most substantial improvements were observed in grammar and coherence, suggesting that ChatGPT's ability to provide immediate corrective feedback, sentence restructuring, and model expressions supports learners in producing more linguistically accurate and logically organized texts. These findings reinforce the notion that AI-based writing tools can function as effective scaffolding mechanisms, helping learners overcome linguistic limitations commonly encountered in EFL contexts, particularly difficulties related to grammar, vocabulary range, and text cohesion.

Moreover, ChatGPT proved helpful during multiple stages of the writing process, including brainstorming, drafting, and revising. Students reported that the tool assisted them in generating ideas, organizing arguments, and refining sentence structures. The availability of instant feedback was

especially valuable in situations where teacher feedback was delayed or limited due to large class sizes or time constraints. In this sense, ChatGPT can serve as a supplementary support system that extends learning opportunities beyond the classroom and promotes greater learner autonomy in writing development.

Second, regarding students' perceptions, the findings reveal generally positive attitudes toward the use of ChatGPT as a writing assistant. Most participants considered the tool easy to use, beneficial for improving writing quality, and effective in increasing their motivation and confidence in writing English. The presence of an AI-based writing companion appears to reduce writing anxiety, as students can experiment with language, revise drafts, and seek feedback without fear of immediate judgment from instructors or peers. This psychological support contributes to increased engagement and persistence in writing tasks, which are essential factors in second language writing development.

Nevertheless, these positive perceptions should be interpreted cautiously. While AI tools may enhance convenience and efficiency, they do not automatically guarantee deeper learning. Without appropriate guidance, students may prioritize quick results over meaningful reflection, potentially limiting the development of higher-order writing skills such as critical analysis, argument construction, and original idea formulation.

Third, the study highlights important challenges associated with AI-assisted writing, particularly the risk of overreliance on AI-generated content. Some students admitted directly copying sentences produced by ChatGPT without fully understanding their meaning or linguistic structure. Such practices may hinder the development of independent writing skills, reduce opportunities for productive cognitive

struggle, and weaken critical thinking abilities. Writing is not only a linguistic activity but also a cognitive process involving idea generation, organization, and evaluation. Excessive dependence on AI could undermine these essential learning processes if not carefully managed.

Ethical considerations also emerged as a significant concern. Several participants expressed uncertainty about acceptable boundaries in using AI for academic writing, including issues related to plagiarism, authorship transparency, and citation of AI contributions. This reflects a broader challenge in contemporary education, where rapid technological advancement often outpaces institutional guidelines and student awareness. Therefore, AI literacy must become an integral part of modern language education. Students need explicit instruction on responsible AI usage, verification of AI-generated content, maintenance of academic integrity, and critical evaluation of automated feedback.

From a pedagogical perspective, the findings suggest that ChatGPT should be integrated as a complementary instructional tool rather than a replacement for traditional teaching. Educators remain essential in guiding students toward reflective, ethical, and critical use of AI technologies. Structured instructional strategies — such as guided prompt design, reflective writing exercises, peer discussion about AI feedback, and explicit ethical guidelines — can help maximize the benefits of AI while minimizing potential risks.

Furthermore, AI-assisted writing tools may be particularly beneficial in educational contexts with limited instructional resources, large student populations, or restricted access to individualized feedback. In such environments, ChatGPT can serve as an accessible supplementary resource that

supports continuous learning and enhances students' opportunities for writing practice.

In conclusion, this study demonstrates that ChatGPT holds substantial potential as a writing assistant in EFL education. It can improve writing quality, increase learner motivation, and foster greater autonomy in the writing process. However, successful integration depends on thoughtful pedagogical design, strong AI literacy education, and clear institutional policies regarding ethical AI use. When implemented responsibly, AI tools like ChatGPT can become valuable partners in language learning without compromising academic integrity, critical thinking development, or students' authentic writing abilities.

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