



EFL Postgraduate Students' Attitudes Toward Using ChatGPT in Research Writing

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Abstract. The fast-paced integration of artificial intelligence (AI) tools in higher education has remarkably impacted academic writing practices, particularly among postgraduate students in English as a Foreign Language (EFL). This study aims to examine the attitudes of EFL postgraduate students towards the use of ChatGPT in research writing, focusing on their perceived usefulness, user-friendliness, ethical considerations, and impact on learning. Employing a quantitative research approach, data were gathered from 63 postgraduate students enrolled in an EFL master's program. The results reveal that students generally view ChatGPT as a valuable and easy-to-use resource that boosts their productivity, aids in idea generation, and assists with lexical and grammatical issues, enhancing the clarity of their writing. However, participants raised ethical concerns, particularly regarding the potential for overuse, plagiarism risks, and threats to academic integrity. The research findings also underscore the need for institutional policies and pedagogical guidance to promote the responsible and informed use of generative AI in educational contexts. This study contributes to existing research on the use of AI in education by presenting the functionality of ChatGPT in skill development and the challenges associated with its use.

Keywords: Postgraduate students · EFL research writing · artificial intelligence · ChatGPT

1 Introduction

Research writing plays a crucial role in the generation and dissemination of knowledge gained through research conducted in various disciplinary areas. This, in turn, constitutes the basis for undergraduate and graduate education. Considering that research has currently become a fundamental activity in university education processes, as it allows for the exploration of possible alternatives that could be implemented to address the various social problems that arise, students need to have the skills that allow them to develop quality writing skills and communicate appropriately [1–4]. In this sense, many educational institutions offer courses focused on essential aspects of academic writing, including organization and structure, tone and writing style, proper citation practices,

dissemination, and publishing, as well as academic integrity by fostering originality and avoiding plagiarism [5]. The purpose is to provide students with tools that contribute to their academic advancement in each of their areas of expertise. Another essential aspect emphasized by these courses is ensuring that participants have a thorough understanding of the norms, methodologies, and standards accepted in research writing. Academic writing training for graduate students involves teaching them the standards and regulations of academic writing. It also requires a solid understanding of the field in which they work [6, 7]. Despite the personalized support these courses can provide, it is common for university students to have weaknesses with lexical, rhetorical, and syntactical issues, as well as formulating academically rigorous ideas [3]. In response to these challenges, the inclusion of writing technologies like ChatGPT is gaining traction, offering an alternative to improve writing skills and to promote autonomy in learning [7].

ChatGPT is an advanced AI technology that enables people to interact with a computer more naturally and conversationally, and it also generates text outputs that are relevant and human-like [8]. ChatGPT shows the potential to replace search engines, as it offers accurate and reliable information to students. ChatGPT engages students in question-and-answer interaction, reinforces learning, retrieves prior knowledge to build new knowledge, and provides personalized feedback and suggestions for further learning. Such features have become particularly beneficial for enhancing the writing skills of postgraduate students [9], particularly in non-native English-speaking countries.

The integration of ChatGPT in research writing promises to provide a more personalized and practical learning experience for higher education students, as it has the capacity to detect grammar and style errors, making written content more comprehensible and tailored to individual learning objectives and preferences [6]. ChatGPT can provide users with information and resources that enable them to gain a comprehensive understanding of the topic, and it can also suggest summaries and relevant literature tailored to the user's needs. Moreover, with the help of AI, students can have a rapid error correction process, which adds to the series of advantages in terms of productivity and efficiency [10].

According to [11], employing AI technologies to refine assignments can significantly enhance students' academic performance and the development of soft skills. In the same vein, [12] agrees that ChatGPT is a multifunctional writing aid, assisting in outlining, content editing, proofreading, and final document presentation. EFL students often view ChatGPT as a beneficial resource for enhancing their writing skills, particularly in areas such as grammar, syntax, and vocabulary. Although there are no definitive studies on postgraduate students, research conducted on students enrolled in EFL courses indicates that they have favorable impressions of ChatGPT's functionality. For example, in one study, 78.3% of the respondents stated that ChatGPT could fix grammar and syntax mistakes, while 61% thought it was helpful in vocabulary expansion [13]. Similarly, students utilize ChatGPT to organize outlines, revise content, and conduct post-writing checks. In [14], the authors emphasize ChatGPT's role in prewriting, drafting, and post-writing, suggesting that it empowers learners to produce fluent and well-structured texts. Although concerns exist about the tool's comprehensiveness in providing feedback, the prevailing opinion remains that there is no doubt ChatGPT is helpful and serves as a

motivation to improve learners' writing skills [1]. As for specific refinements, the literature suggests that the introduction of ChatGPT could significantly improve conciseness, grammar, and key point coverage in writing [15]. Moreover, by helping postgraduates with tasks such as summarizing articles, identifying relevant aspects, and providing quotations, ChatGPT can save time and effort in article processing [16]. Nonetheless, incorporating AI tools into academic settings raises significant questions regarding their practicality, ethical considerations, and impact on educational outcomes [17]. Furthermore, [18] suggested that the role of AI in fostering advanced cognitive skills remains a topic of active discussion.

As with any new technology, several authors have raised concerns about the applications and use of ChatGPT. In [19], the researchers raised concerns about the validity of the learning experience and excessive reliance on AI tools. Besides, there are concerns that users may copy and paste text generated by AI without recognizing the potential for plagiarism. Similarly, [20] emphasized the importance of human participation to ensure that the text generated by AI is clear, coherent, and contextually appropriate. When students rely solely on the suggestions provided by ChatGPT, the problems may include inaccuracies or distortions that alter the intended meaning of the text. [21] Highlight the potential risks of overdependence on AI tools, noting that such dependence may impede the development of essential cognitive abilities such as critical thinking and originality. These skills are considered essential in higher education. Moreover, the studies in [22] and [23] suggest that although ChatGPT has proven helpful in brainstorming and structuring research proposals, users are still required to engage in further refinement to adapt to academic standards. In the same vein, [24] and [25] explored students' perceptions of AI tools and their ability to use such resources ethically and responsibly. The results underscore the importance of providing adequate training and guidance on AI tools to keep academic integrity [12].

Scholarly writing is a fundamental aspect of a postgraduate student as it demands both a solid understanding of the topic and an advanced command of language. [26] sought various challenges students struggle with and put them into two categories: (1) discourse-level problems, such as content quality, idea development, and organization, and (2) sentence-level problems, such as using accurate grammar rules, vocabulary, and mechanics. Hence, these problems hinder their ability to produce well-written academic texts. In this regard, AI tools like ChatGPT have been launched to facilitate writing by assisting with idea generation, drafting, and revision [5, 27].

Naturally, the integration of AI tools into academic settings, particularly in research writing, has gained popularity due to the ease of their use and linguistic support. However, the implementation of ChatGPT raises significant issues regarding effectiveness, critical thinking, originality, ethical implications, and adherence to academic standards [8]. This is particularly relevant for postgraduate students in English as a Foreign Language (EFL), as the line between helpful support and excessive dependence is relatively thin. Understanding the perceptions of EFL postgraduate students regarding the use of ChatGPT can provide essential insights into the benefits and potential of academic principles such as independent thought and ethical scholarship [28].

Accordingly, this study aims to investigate the attitudes of EFL postgraduate students toward the use of ChatGPT in research writing. Researchers aim to evaluate their

perceptions of the tool's usefulness, ease of use, ethical implications, and impact on their learning. The insights into students' perceptions of ChatGPT obtained from this research will contribute to ongoing discussions about the responsible integration of AI in higher educational contexts, providing a guide on the effective use of this technology as well as future approaches to research writing instruction in the EFL field.

The study addresses the following research question: What are the attitudes of EFL postgraduate students toward using ChatGPT to enhance their academic writing?

2 Materials and Methods

2.1 Research Design and Participants

This research aimed to examine the attitudes of postgraduate students toward using ChatGPT as a tool to scaffold and improve their academic writing in dissertations and final research projects. For this study, the researchers employed a quantitative approach. In [29], the authors mention that quantitative research is “most effective when it is necessary to identify factors that influence the outcome”. In these regards, the researchers identified the postgraduate students' attitudes toward using ChatGPT (factors) as a tool to scaffold and improve their academic writing in dissertations and final research projects (the outcome).

A convenience sampling strategy was used to recruit participants for this study. As noted in [20] and [21], convenience sampling is a non-probability method selected for its practicality, ease of access, and low cost, particularly when working with voluntary participants within a defined academic context. The sample consisted of 63 postgraduate students enrolled in a Master's program in Teaching English as a Foreign Language at a private university in Ecuador. All participants held bachelor's degrees in English teaching and had at least five years of teaching experience at the primary or secondary level. Their English proficiency ranged from B2 to C2, as defined by the Common European Framework of Reference for Languages (CEFR). The participants' ages ranged from 25 to 42, and Spanish was their first language. During the Fall 2024 semester, they attended online classes via Zoom.

2.2 Data Collection Procedure

The process of creating and validating a questionnaire followed the steps set in [22] and [23]. It began with identifying key data needs based on the research objectives and aligning them with the research question. After that, the type of questions and sections of the questionnaire were chosen, ensuring clarity, organization, and coherence.

Following the study's objective and research question, the researchers constructed a questionnaire comprising 32 multiple-choice items, each with options on a Likert scale, and one open-ended item, grouped into four sections. The first section focused on the usefulness of using ChatGPT to improve students' academic writing for research, the second on ChatGPT's ease of use, the third on the ethics of using ChatGPT, and the fourth on the impact that ChatGPT has on learning.

Once the questionnaire was constructed, the next step involved validating this research instrument through expert judgment from two university professors. Their comments focused on the wording of the questions, the organization of the response options, and a clarification of one question. Following the experts' suggestions, the researchers modified the questionnaire accordingly. The instrument was piloted with a group of students who shared the same characteristics as the actual respondents, but did not answer the final questionnaire.

Using the piloting results, the researchers calculated Cronbach's Alpha to measure the instrument's internal consistency (validity), yielding a value of 0.944. This indicated that the instrument was reliable, and the researchers administered it. The questionnaire was distributed online between December 2024 and January 2025, during the final module of the Master's degree program titled Project, Presentation, and Dissertation.

The data obtained from the questionnaire were analyzed using descriptive statistical methods, such as the mean, to summarize students' attitudes toward the use of ChatGPT. All analyses were conducted using the open-source statistical software JASP (Jeffreys' Amazing Statistics Program).

Participation in the study was entirely voluntary, and informed consent was obtained from all participants before data collection, in accordance with established ethical research practices. No personally identifiable information was collected, and participants were explicitly informed of their right to withdraw from the study at any time.

3 Results and Discussion

This section presents an analysis of the data collected from 63 postgraduate students who completed an online questionnaire. The results are organized according to the four sections of the instrument: (1) usefulness of ChatGPT in improving academic writing for research, (2) ease of use, (3) ethical considerations, and (4) impact of ChatGPT on their learning. Respondents needed to select their level of agreement on a Likert scale as follows: 1 (strongly disagree), 2 (disagree), 3 (neither agree nor disagree), 4 (agree), and 5 (strongly agree).

3.1 Usefulness of ChatGPT to Improve Students' Academic Writing for Research

Postgraduate studies aim to equip professionals with specialized competencies and in-depth knowledge in specific areas, enabling postgraduate students to advance in their careers. For EFL teachers, postgraduate studies aim to enhance their pedagogical competencies and promote reflective teaching practices by applying new knowledge and research. Accordingly, all Master's Programs in English Teaching in the country offer research-focused courses as part of their curriculum. The objective of these courses is to help postgraduate students identify classroom problems and propose research-based solutions to improve English Language Teaching in their respective educational institutions, often culminating in a thesis project.

Despite the curricular inclusion of research components, the specific academic content of research courses varies across institutions, depending mainly on the vision and mission of each university. However, what seems to be common in these courses is that

they address academic writing, structure and organization of research papers, accurate referencing, critical analysis, academic integrity, and originality [1–4].

During their research courses in Master's Programs in English Teaching, postgraduate students generally report difficulties in identifying a phenomenon or a problem when starting their research projects. Additionally, they face challenges when presenting their research results using appropriate argumentation and formal writing conventions [3]. Consequently, many students have turned to generative AI tools such as ChatGPT for support. Table 1 summarizes students' perceptions of ChatGPT's usefulness for academic and research writing tasks.

Table 1. Usefulness of ChatGPT to improve students' academic writing for research.

Areas	Value
Generation of ideas for research topics more efficiently	3.2
Enhancement of abilities to organize content for research writing	3.8
Saving significant time compared to traditional methods in academic writing	3.7
More beneficial than other sources of information for writing my research project	2.9
Valuable feedback on language accuracy, improving grammar, and tone to meet academic standards	3.4
Identification of relevant literature or sources to include in research work	3.2
Confidence to approach research tasks	3.2
Improvement in the clarity and coherence of writing	3.6
Simplification of tasks such as paraphrasing or summarizing research content	3.7
Improvement in the research project by strengthening arguments	3.5

Max value = 5

The results reveal moderate agreement on the usefulness of ChatGPT, with mean values ranging from 2.9 to 3.8. In this sense, with a mean of (2.9), participants did not show a preference for using ChatGPT to obtain information for research projects over other resources. This may reflect limited awareness of its capabilities or reliance on more traditional academic databases [30]. Notably, students found ChatGPT to be most helpful in organizing content for research writing (3.8) rather than looking for information, thereby reducing its use to writing support. This can be confirmed, as most participants (3.7) almost agree that using ChatGPT saves significant time compared to traditional academic writing methods and that it simplifies complex tasks, such as paraphrasing or summarizing research content. These findings are consistent with recent studies indicating that AI tools can enhance writing efficiency by automating lower-order tasks, thus allowing users to focus on content development [31, 32].

Regarding clarity and coherence in writing, participants agreed (3.6) that ChatGPT helps in these areas. This confirms that, in general, participants considered ChatGPT as a writing aid that helps organize, edit, and proofread written documents [12] rather than considering other benefits, such as generating ideas for research topics more efficiently

(3.2), identifying relevant literature or sources to include in research work (3.2), or approaching research tasks (3.2). Interestingly, students expressed only neutral attitudes regarding ChatGPT's ability to provide language feedback (3.4). This neutrality may reflect a limited awareness of the tool's potential in supporting broader aspects of research beyond basic writing assistance. Prior research has emphasized the need for pedagogical guidance to maximize the educational value of AI tools, especially in advanced academic contexts [33]. These results underscore the need for targeted training in the pedagogical use of AI, particularly in research design and academic communication.

3.2 Ease of Use of ChatGPT

The second area explored in the questionnaire revolved around respondents' perceptions of the ease of using ChatGPT in research. This section focused on interface usability, language adaptability, feedback features, and integration into research workflows. The results are summarized in Table 2.

Table 2. Ease of use of ChatGPT.

Areas	Value
Easy to use for research writing tasks	3.7
User-friendly interface	4.2
Ease in utilizing features for content generation	3.7
Integration with the current research writing process	3.3
Comfort in navigating features for research assistance: literature review, theoretical explanations, and data analysis support	3.3
Quick feedback enhances efficiency	3.6
Language interface adapts to personal working style	3.6
Fosters creativity in research writing	3.3

Max value = 5

Students agreed that ChatGPT is easy to use, particularly appreciating the user-friendly interface (4.2). The minimum value was 3.3 and the maximum was 4.2. Generally, there was a slight variation among responses. Values approaching 3 (neither agree nor disagree) may indicate that postgraduate students selected this option not out of disagreement, but possibly due to limited use or insufficient understanding of the specific characteristic being assessed.

Furthermore, the participants agreed (4.2) that ChatGPT has a user-friendly interface, which is corroborated in [8], as the researchers stated that ChatGPT utilizes natural language processing to produce relevant text output in human language. As shown in Table 2, this interface also allows postgraduate students to understand how to utilize ChatGPT's features for content generation in research writing (3.7) and writing tasks (3.7). The content generated by ChatGPT is primarily based on text and is produced in response to the questions that users ask; thus, the importance of asking relevant

questions. In this sense, postgraduate students agreed that the language interface adapts to their preferred working styles (3.6) and the feedback provided by ChatGPT makes their research tasks efficient (3.6).

The values close to 3.0 in Table 2 suggest that postgraduate students may struggle to fully integrate ChatGPT into their current research writing practices (3.3). This could be attributed to the need for students to first strengthen their academic writing abilities before effectively leveraging AI tools. Rather than relying on ChatGPT to produce their entire work, it should be employed as a complementary resource to assist with writing and content development. For instance, students expressed only moderate ease when using ChatGPT for specific research assistance, such as conducting literature reviews, explaining theoretical frameworks, or supporting data analysis (3.3). As previously noted, the quality of ChatGPT's output is heavily influenced by the clarity and precision of user input. Therefore, students must possess a well-defined research plan and analytical framework before seeking assistance from ChatGPT [34]. Moreover, creative expression in writing, which is a distinctly human characteristic, is not easily nurtured by artificial intelligence. This limitation is reflected in the score for creativity support, which also stands at 3.3.

In this context, it is essential to note that, despite the ease of use of ChatGPT, it remains an application that relies on human input to operate. Consequently, postgraduate students must possess a foundational understanding of research methodology, data analysis, academic writing conventions, and a clear strategy for utilizing ChatGPT. Without this prior knowledge, its effectiveness for scholarly work may be limited [35]. Additionally, postgraduate students should be aware of the ethical implications that the use of ChatGPT or other artificial intelligence-based applications poses for education.

3.3 Ethics of Using ChatGPT

The third area of the study examined the ethics of utilizing ChatGPT in research, with a focus on academic integrity, proper citation, and critical thinking. Postgraduate students were asked to provide their perceptions regarding seven statements. The results in Table 3 show a minimum value of 2.8 and a maximum of 4.3.

ChatGPT can motivate students to improve their writing skills [1] and assist them with various tasks, such as summarizing articles, identifying relevant aspects, and providing quotations, thereby saving students' time and effort [16]. However, when they use ChatGPT carelessly, they may jeopardize the ethics of research and engage in unethical academic practices, such as plagiarism. For example, data in Table 3 shows that postgraduate students disagree that ChatGPT aligns with ethical standards in academic research writing (2.8). These results may reflect a lack of understanding of the tool's limitations and its potential implications for academic integrity. Besides, postgraduate students may not be aware of research ethics and place the responsibility entirely on ChatGPT. This may not be appropriate since it is an application based on AI, which, by itself, does not necessarily think or follow ethical standards. The users are responsible for adhering to the ethical principles in research.

Regarding the originality of postgraduate students' academic work, they tended to disagree that using ChatGPT does not compromise the originality of their work (2.9). This suggests that postgraduate students may not be aware that when they use ChatGPT,

Table 3. Ethics of using ChatGPT.

Areas	Value
Confidence that ChatGPT's use is aligned with ethical standards	2.8
Use of ChatGPT does not compromise the originality of the work	2.9
Awareness of ChatGPT limitations	4.0
Proper citation of ChatGPT's contributions should be mandatory in research projects	3.3
Importance of verifying suggestions provided by ChatGPT to avoid academic dishonesty	4.3
ChatGPT might discourage critical thinking	3.8
Overuse of ChatGPT could blur the line between assistance and plagiarism	4.0

Max value = 5

its output is a compilation of pre-existing information drawn from various online sources, thereby reducing the originality of their work. This perception is further reflected in the neutral stance students expressed regarding the need to formally cite ChatGPT's contributions in research projects (3.3). As previously noted, values approaching 3 mean that postgraduate students neither agree nor disagree with the statements, implying uncertainty or limited understanding of the implications of AI-generated content in academic contexts.

On the other hand, the aspects with which postgraduate students agreed highlight specific ethical concerns: Reliance on ChatGPT might discourage critical thinking in academic research (3.8), excessive use could blur the line between assistance and plagiarism (4.0), and suggestions provided by ChatGPT should always be verified to avoid academic dishonesty (4.3). These results suggest that postgraduate students may be aware that failing to use ChatGPT critically can lead to academic dishonesty. Thus, promoting a thoughtful and informed approach to integrating ChatGPT as a mediating tool is essential so that postgraduate students can reflect on the originality and academic integrity of their research work when implementing this tool [28]. These findings also underscore the need to explicitly integrate ethics and digital literacy training into postgraduate curricula, ensuring that students are accountable for the responsible use of AI tools in academic contexts.

3.4 Impact of ChatGPT on Learning

Table 4 presents participants' perceptions of the areas regarding the impact of ChatGPT on their learning:

Table 4 shows that students agreed that the use of ChatGPT assists them in better understanding complex concepts related to research writing in EFL teaching and learning (3.8) and improves their ability to structure and organize research projects in the field (3.6). These are noteworthy results, as both areas represent common challenges for students engaged in academic research.

Table 4. Impact of ChatGPT on learning.

Areas	Value
Helps understand complex concepts in EFL research	3.8
Encourages exploring innovative approaches to writing EFL research projects	3.5
Fosters creativity in formulating research questions for EFL-related studies	3.4
Enhances the ability to address writing challenges in EFL research	3.4
Improves the ability to structure and organize EFL research projects	3.6
Increases confidence in approaching EFL research writing tasks	3.4
ChatGPT should be integrated into EFL research writing courses	3.5

Max value = 5

Interestingly, the findings revealed that postgraduate students agreed with the integration of ChatGPT into EFL research writing courses, as it enriches and refines their writing skills in a precise and efficient manner (3.4). However, a broader integration of AI tools, not only ChatGPT, would offer more options for students. Finally, the last two aspects that postgraduate students seemed to agree on are that ChatGPT motivates them to approach EFL research writing tasks more confidently (3.4) and enhances their ability to address common challenges in academic writing for EFL research (3.4). This is consistent with Vygotskian perspectives on mediated learning, in which tools serve as extensions of cognitive activity [36].

Generally, postgraduate students believe that ChatGPT influences the development of their academic writing and enhances their research skills. When used appropriately, this tool can scaffold students' learning and, in the long run, equip students to propose solutions to ELT issues they may encounter within their professional contexts [37].

In summary, in today's technological era, education needs to adapt to the new demands of society and digital innovation. EFL teachers, especially at the postgraduate level, are encouraged to modernize their instructional approaches. In this level of education, students are professionals with strong academic and professional backgrounds. Furthermore, Master's programs typically encourage active participation, where learners exchange knowledge and experiences with their instructors and peers. In this sense, the use of AI becomes an alternative that promotes autonomous learning. Hence, it is essential to develop an understanding of how to use ChatGPT for research and academic writing, evaluating its role as a mediating tool in addressing issues of originality and academic integrity [38]. Ultimately, the integration of AI tools at the postgraduate level should not replace critical thinking, but rather empower students to become ethical, skilled, and reflective researchers.

4 Conclusions

This study aimed to explore the attitudes of EFL postgraduate students toward the use of ChatGPT in academic research writing, with a particular focus on its perceived usefulness, ease of use, ethical implications, and impact on learning. The study results

revealed that students were generally positive about using ChatGPT during the research writing process. ChatGPT has become an accessible and supportive tool that helps mitigate common writing challenges in terms of language use, organization, and efficiency. Participants acknowledge the value of the tool in generating ideas, its user-friendliness, and the improvement of their writing. Aside from other benefits, such as saving time, providing personalized feedback, and fostering creativity, students are also aware of the limitations, including hindering critical thinking and originality. The results also highlight the students' uncertainty regarding the risk of academic dishonesty and the dilution of originality, which are ethical concerns associated with the use of AI in academic work. This demonstrates the importance of critical awareness when engaging with generative AI in academic settings.

While this study showcases the potential of ChatGPT in enhancing academic writing, it also underscores the need for explicit instruction, institutional policies, and AI literacy training. These are essential to ensure that ChatGPT is not used to replace critical thinking, but rather as a complementary tool within ethical academic practices. In this context, institutions and instructors should develop clear guidelines and policies that address ethical aspects, including the attribution of AI-generated content and responsible use to ensure academic integrity. In parallel, pedagogical practices should incorporate ChatGPT as a complementary tool within research writing instruction, as students are likely to use it regardless. Instructors are encouraged to frame ChatGPT not as a shortcut to comply with an academic task but as a support resource that, when used appropriately, can bolster reflective writing and linguistic precision while preserving ethical reasoning and scholarly rigor.

It is essential to acknowledge the dual role of ChatGPT, serving both as a supportive tool for academic writing and a source of ethical concern. Its integration into EFL postgraduate education presents an excellent potential for enhancing research skills. However, thoughtful and coordinated efforts at the institutional, pedagogical, and scholarly levels are necessary to guarantee ethical, reflective, and independent academic practices.

One limitation of this study that should be acknowledged is that while convenience sampling was suitable for accessing a specific group of experienced EFL professionals, it inherently limits the generalizability of the findings. The results may not fully represent all EFL postgraduate students, especially those from different institutional, linguistic, or cultural backgrounds. Therefore, the findings should be interpreted within the context of the sampled population and with caution regarding broader applications.

Future research should investigate the long-term effects of AI-assisted writing on students' critical thinking and research skills, compare its application across various educational contexts, and explore the ethical and pedagogical challenges associated with it through qualitative studies. Instructors, authorities, and curriculum developers must work collaboratively to promote the ethical and responsible use of AI tools, aligning them with the educational goals.

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