AI in Academic Writing Pedagogy: Insights from EFL University Instructors

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الذكاء الاصطناعي في تدريس الكتابة الأكاديمية: رؤى من أساتذة جامعيين متخصصين في اللغة الإنجليزية كلغة أجنبية

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Abstract:

The integration of Artificial Intelligence (AI) into academia presents new dynamics for English as a Foreign Language (EFL) instruction. This qualitative study explores Libyan EFL university teachers' perspectives on the use of AI-driven tools to enhance undergraduate academic writing. Data were collected through semi-structured interviews with nine instructors, recruited via a purposive convenience sampling from two public universities. A thematic analysis revealed that teachers recognize AI tools as valuable assistants that provide immediate feedback on grammar and vocabulary, thereby promoting student autonomy. However, a central concern was that student overreliance can undermine the development of critical thinking and independent writing skills. Furthermore, the study identified critical impediments to implementation, including limited digital literacy, insufficient institutional support, and inadequate technological infrastructure. The findings suggest that for AI to be a transformative, rather than a limiting, force in Libyan EFL contexts, its integration must be supported by comprehensive teacher training and clear pedagogical guidelines that emphasize a balanced approach to writing instruction.

Keywords: Artificial Intelligence (AI), EFL Academic Writing, University instructors' perspectives, Generative AI applications, Pedagogical technology integration, Digital literacy in higher education, Academic integrity challenges.

ملخص:

يُقدّم دمج الذكاء الاصطناعي في الأوساط الأكاديمية ديناميكيات جديدة لتدريس اللغة الإنجليزية كلغة أجنبية (EFL). تستكشف هذه الدراسة النوعية وجهات نظر أساتذة الجامعات الليبية المُدرّسين للغة الإنجليزية كلغة أجنبية حول استخدام الأدوات المُعتمدة على الذكاء الاصطناعي لتحسين الكتابة الأكاديمية لطلاب البكالوريوس. جُمعت البيانات من خلال مقابلات شبه مُنظّمة مع تسعة مُدرّسين، اختيروا من خلال عينة عشوائية مُيسّرة من جامعتين حكوميتين. كشف تحليل موضوعي أن المُدرّسين يُدركون أن أدوات الذكاء الاصطناعي تُعدّ أدوات مُساعدة قيّمة تُقدّم تغذية راجعة فورية في القواعد والمفردات، مما يُعزّز استقلالية الطلاب. ومع ذلك، كان أحد المخاوف الرئيسية هو أن الإفراط في اعتماد الطلاب على الذكاء الاصطناعي يُمكن أن يُقوّض تنمية مهارات التفكير النقدي والكتابة المُستقلة. علاوة على ذلك، حددت الدراسة مُعوّقات حرجة أمام التطبيق، بما في ذلك محدودية المعرفة الرقمية، ونقص الدعم المؤسسي، وعدم كفاية البنية التحتية التكنولوجية. تُشير النتائج إلى أنه لكي يكون الذكاء الاصطناعي قوة تحويلية، لا مُقيّدة، في سياقات تدريس اللغة الإنجليزية كلغة أجنبية في ليبيا، يجب أن يُدعم دمجه بتدريب شامل للمُدرّسين وإرشادات تربوية واضحة تُركّز على نهج متوازن في تدريس الكتابة.

الكلمات المفتاحية: الذكاء الاصطناعي، الكتابة الأكاديمية في اللغة الإنجليزية كلغة أجنبية، وجهات نظر أساتذة الجامعات، تطبيقات الذكاء الاصطناعي التوليدية، تكامل التكنولوجيا التربوية، محو الأمية الرقمية في التعليم العالي، تحديات النزاهة الأكاديمية.

1. Introduction

Academic writing serves as a cornerstone of higher education, functioning as a primary mechanism for students to construct knowledge, demonstrate critical thinking, and engage in scholarly discourse. It demands a structured presentation of arguments, supported by evidence and adherence to disciplinary conventions (Richard & Miller,

2008). For students, mastering academic writing cultivates transferable skills in analytical reasoning and clarity of thought, which are crucial for both academic success and professional employability (Bean, 2011; Hyland & Jiang, 2017). However, for English as a Foreign Language (EFL) learners, this task is particularly daunting. Challenges with grammar, vocabulary, coherence, and argumentation are often compounded by limited exposure to academic English and insufficient opportunities for individualized feedback, which can hinder academic performance and engagement (Ferris, 2009; Hyland, 2009).

In response to these persistent challenges, the integration of Artificial Intelligence (AI) has emerged as a potentially transformative force in language education. AI-driven writing tools, such as Grammarly, ChatGPT, and automated writing evaluation systems, offer real-time, automated feedback on errors, style, and structure. For EFL settings, these tools promise to scaffold the writing process, foster learner autonomy, and provide support where instructor resources are stretched thin (Huang et al., 2019; Nguyen & Nguyen, 2022). For educators, AI presents an opportunity to streamline the grading of routine errors, thereby freeing up time to focus on higher-order concerns like content and argumentation.

Despite this potential, the integration of AI is not without significant drawbacks. Scholars have raised concerns about student over-reliance, which may lead to superficial learning and an erosion of critical thinking and independent writing skills (Rogerson & McCarthy, 2017; Marcus & Davis, 2019). The rise of generative AI further complicates the landscape, introducing profound questions about academic integrity, authorship, and originality (Bender et al., 2021). In this complex environment, the teachers' role becomes pivotal. Teachers act as crucial mediators of technology, and their perspectives, digital literacy, and pedagogical strategies ultimately determine whether AI is used effectively and ethically (Rahman et al., 2022).

This is especially pertinent in under-researched contexts like Libya, where AI adoption in EFL instruction remains in its nascent stages. While digital transformation is gradually occurring, existing studies have primarily focused on students' perspectives on technological aspects (Baroud et al., 2024; Hmouma, 2024), overlooking the vital insights of teachers who are central to successful implementation. Personal teaching experience confirms that Libyan EFL teachers face practical challenges, including unfamiliarity with AI tools, a lack of training, and concerns about academic integrity when students use these technologies. Consequently, there is a critical gap in understanding how Libyan EFL university instructors perceive and navigate the use of AI-driven tools in academic writing instruction.

To address this gap, this study aims to investigate EFL teachers' perspectives on using AI-driven tools to enhance university students' academic writing skills and to examine the challenges they face in utilizing these tools effectively in the classroom.

2. Literature Review
2.1. The Role of Artificial Intelligence in Education
Artificial Intelligence (AI) has evolved from a theoretical concept in computer science to a transformative force across various sectors, including education. Contemporary understandings of AI, particularly Generative AI, focus on systems capable of performing tasks that typically require human cognitive functions, such as learning, reasoning, and problem-solving. A pivotal development in this field is the advent of Generative AI, which differs from earlier analytical AI by its capacity to create novel content, including text, images, and code, rather than merely analyzing existing data. Tools like ChatGPT and Grammarly exemplify this shift, leveraging Large Language Models (LLMs) trained on vast datasets to generate human-like text and provide sophisticated feedback. The core value of these tools in educational contexts lies in their dual characteristics of creativity and adaptability. Creativity allows them to generate original ideas, suggest alternative phrasings, and help overcome writer's block, while adaptability enables them to tailor their responses and feedback to specific user prompts and contextual needs (Kohnke, Moorhouse, & Zou, 2023). This dynamic capability moves technology's role beyond static drills and simple grammar checks, positioning AI as a potential interactive partner in the complex process of academic writing, especially within English as a Foreign Language (EFL) context where personalized support is often critically needed.

2.2. Theoretical Frameworks for Technology Integration
The effective integration of advanced technologies like AI into learning environments is not an automatic process; it must be guided by sound pedagogical principles to move beyond mere novelty and achieve meaningful educational outcomes. Several established frameworks provide a crucial lens for understanding how technology can be woven effectively into pedagogy. The long-standing framework of Computer-Assisted Language Learning (CALL) establishes the foundational principle that technology should be used to facilitate authentic communication and collaborative learning, moving language practice beyond rote memorization to genuine interaction (Warschauer, 1996). Building on this, the SAMR model (Puentedura, 2013) offers a practical hierarchy for categorizing and striving for deeper technology integration. It encourages educators to progress from using technology as a simple substitute for traditional tools—such as typing an essay instead of handwriting it—toward using it to redefine learning tasks in ways previously inconceivable, such as enabling students to engage in real-time, iterative writing collaborations with an AI. However, the most critical framework for understanding the

teacher's central role is the Technological Pedagogical Content Knowledge (TPACK) model (Mishra & Koehler, 2006). TPACK posits that effective teaching with technology requires a nuanced and interdependent blending of three core knowledge domains: Technological Knowledge (TK—understanding tools like AI), Pedagogical Knowledge (PK—knowing how to teach effectively), and Content Knowledge (CK—mastery of the subject matter, such as academic writing conventions). The essence of TPACK lies in the intersections, emphasizing that it is not enough for a teacher to know how an AI tool works; they must also possess the pedagogical judgment to know why, when, and how to deploy it to teach specific writing skills effectively. This framework firmly positions the teacher as the indispensable mediator whose expertise determines whether technology enhances or hinders the learning process.

2.3. Empirical Evidence on AI in Academic Writing
A growing body of empirical research from diverse global contexts provides a nuanced picture of AI's impact on academic writing, consistently revealing a landscape of significant potential tempered by substantial challenges. On one hand, numerous studies highlight tangible benefits for both the quality of student writing and their affective engagement with the writing process. Research by Mahapatra (2024) demonstrated that ESL learners who used ChatGPT in a structured classroom intervention showed significantly greater improvement in writing cohesion and organization compared to a control group, while also reporting reduced writing anxiety. Similarly, El-Garawany (2024) conducted a six-week intervention using QuillBot with English majors in Egypt, documenting measurable gains in grammatical accuracy, vocabulary diversity, and overall writing fluency. In the Middle East, Aladini (2023) found that Omani university students using a combination of AI tools showed notable improvements in their academic writing and logical reasoning skills. These findings are corroborated by international research; for instance, Nazari et al. (2021) found that an AI-based writing assistant boosted the engagement and self-efficacy of postgraduate EFL students, encouraging more confident and active revision.
Conversely, a robust strand of evidence underscores serious pedagogical and ethical concerns. Song and Song (2023), in their study of Chinese university students, observed that while ChatGPT enhanced writing accuracy and structure, it also occasionally produced factual inaccuracies and fostered a dependency that could inhibit the development of independent problem-solving skills. In Indonesia, Afifah's (2024) qualitative study revealed that while students valued AI for overcoming writer's block, they were acutely aware of ethical dilemmas related to originality and credibility. In Saudi Arabia, Ayoub et al. (2024) cautioned that tools like Grammarly, while improving surface-level efficiency, could lead to overdependence if not balanced with deliberate practice in self-editing. Scholars like Marcus and Davis (2019) have further amplified these concerns, warning of broader risks to academic integrity and the potential erosion of critical thinking when AI is used without careful oversight. This duality is also evident in the emerging Libyan context. Initial studies, such as Msimeer (2023) and Elsherif and Elmeawad (2025), have productively documented student adoption of AI tools, noting benefits for drafting and grammar but also practical barriers like cost and the familiar risk of over-reliance. However, this nascent body of work has systematically focused on the student experience, leaving a critical perspective unexamined.

2.4. The Research Gap and Study Rationale
The synthesis of global and regional literature presents a clear consensus: AI tools offer demonstrable benefits for supporting academic writing, but their successful integration is profoundly mediated by the teacher's pedagogical role. The recurring themes of over-reliance, ethical concerns, and the need for balanced implementation all point to the instructor's TPACK as the crucial determinant of success. However, within the specific context of Libyan higher education, a significant and consequential gap persists. While initial studies have effectively documented the student perspective and general institutional challenges, the voices, experiences, and professional judgments of Libyan EFL university teachers remain largely absent from the scholarly conversation. There is a critical lack of localized, teacher-centered research that explores how instructors perceive the benefits and challenges of AI, how they navigate the complex interplay of technology, pedagogy, and content in their classrooms, and what institutional support they require to implement these tools effectively. Understanding these perspectives is not merely an addition to the existing knowledge but a fundamental prerequisite for designing meaningful professional development, creating sustainable integration strategies, and ensuring that the global potential of AI translates into genuine educational improvement in Libya. Therefore, to address this critical gap, this study is designed to investigate the perspectives of Libyan EFL university teachers on using AI-driven tools to enhance students' academic writing skills.

3. Methodology
3.1. Research Design
This study employed a qualitative research design to investigate the perspectives of Libyan EFL university teachers regarding the use of AI-driven tools in academic writing instruction. A qualitative approach was deemed most appropriate as it aligns with the study's aim of exploring complex, nuanced phenomena, such as beliefs, experiences, and challenges, from the participants' own viewpoints (Creswell, 2012). Rather than seeking statistical generalizability, this methodology facilitates a deep, interpretive understanding of the contextual factors

that shape teachers' pedagogical decisions and attitudes. It allows for the rich, descriptive data necessary to answer the "how" and "why" behind their integration, or resistance to integrating, AI technologies into their writing classrooms. This design is particularly effective for capturing the detailed insights and lived experiences of participants in their own words, providing a foundational understanding of an under-researched area within its real-world context.

3.2. Participants and Sampling

A purposive convenience sampling strategy was used to recruit participants. The study involved nine (9) EFL teachers teaching at departments of English at two public universities in Libya: Tripoli University and Al-Merqab University. Participants were selected based on their direct experience teaching academic writing courses at the undergraduate level, ensuring their insights were directly relevant to the research problem. Convenience sampling was practical given the logistical constraints of the research context, while the purposive element ensured that all participants possessed the key characteristic of being EFL writing instructors (Patton, 2002). This sample size is consistent with common practices in qualitative inquiry, where the depth of data from a smaller, information-rich cohort is prioritized over breadth.

3.3. Data Collection and Analysis

Data were collected through semi-structured interviews. This method was chosen because it provides a flexible yet focused structure, allowing the researcher to guide the conversation around key themes—such as perceived benefits, challenges, and implementation strategies—while also permitting the exploration of unexpected topics raised by the participants. An interview protocol was developed to ensure consistency, with open-ended questions designed to elicit detailed narratives and reflections. To enhance the validity and clarity of the instrument, the protocol was piloted with two EFL teachers who were not part of the main study. Their feedback led to minor refinements in the wording and sequencing of questions.

Prior to the interviews, informed consent was obtained from all participants, ensuring they were aware of the study's purpose, their right to withdraw, and the confidentiality measures. The interviews were audio-recorded with participant permission and transcribed verbatim to ensure accuracy in data representation.

The transcribed data were subsequently analyzed using thematic analysis following the systematic process outlined by Braun and Clarke (2006). This involved a multi-stage process: familiarization with the data, generating initial codes, searching for themes, reviewing potential themes, defining and naming them, and producing the report. This rigorous process ensured that the identified themes were firmly grounded in the empirical data, accurately reflecting the collective perspectives and shared challenges reported by the participating teachers.

4. Findings and Discussion

The following sections present and discuss the study's findings, drawn from interviews with nine EFL teachers about their perspectives on the Use of AI Tools in Developing Undergraduate Writing Skills. The findings are organized by key themes identified during the analysis and illustrated with direct quotes from the teachers. These themes are then discussed and interpreted, contextualizing them within the extant body of literature.

4.1. Perspectives on Using AI Tools in Academic Writing

Libyan EFL teachers report mixed perceptions on using AI for academic writing. While some highlighted its potential for improving grammar and vocabulary, others worried it might undermine students' independent writing and critical thinking skills. This analysis connects these nuanced views to existing educational theories and empirical research, situating the local perspectives within the wider scholarly conversation on AI in language learning.

a. Positive Perspectives

Teachers primarily reported positive views on AI tools, recognizing their significant role in enhancing student writing. They valued tools like Grammarly and ChatGPT for providing instant, actionable feedback on grammar, sentence structure, and overall organization, which helps students identify and correct errors more efficiently. For instance, one of teacher explained, *"Grammarly is valuable because it provides immediate feedback on grammar and structure, allowing students to more easily spot their mistakes."* This perspective is supported by Selim (2024) and Ziar (2025), who found AI tools enhance writing accuracy, efficiency, and coherence.

Furthermore, teachers saw these technologies as vital assistants for students struggling with academic conventions, such as essay structure and citations. They observed that AI can effectively guide students to organize their ideas more coherently. For example, one of the teachers noted that *"these tools help students become autonomous learners."* These views and observations are empirically supported by Zakaria and Ningrum (2023), who noticed ChatGPT's role in enhancing writing efficiency and accuracy. They are also implied by the Technological Pedagogical Content Knowledge (TPACK) framework, which demonstrates the effective integration of technology to provide personalized feedback for deepening students' understanding of academic writing conventions.

b. Pedagogical and Ethical Concerns

Despite recognizing the benefits of AI, most teachers expressed profound concern that these tools may inhibit the development of higher-order skills like critical thinking, argumentation, and creativity. They acknowledged that while AI tools assist with language mechanics, they might limit students' critical thinking abilities if used excessively. For example, one teacher noted that *while AI tools like ChatGPT and Grammarly can improve writing skills, they may lead to over-reliance, which could impede students' ability to engage critically with their writing tasks*. This concern aligns with the findings of Reyes (2024), who found that while AI tools help refine grammar and structure, they do not necessarily foster deeper engagement with content or enhance critical thinking. From a theoretical perspective, the constructivist learning approach (Egbert, 2005) highlights the importance of students actively constructing their own knowledge rather than passively relying on automated corrections. If students rely too heavily on AI-generated suggestions, they may fail to critically engage with writing tasks, a concern reflected by the teachers in this study.

Another significant concern raised was the risk of AI tools leading to a decline in student engagement with the writing process. Teachers noted that some students might rely on AI tools without making an effort to understand their mistakes, which could hinder their long-term writing development. This concern is consistent with the findings of Uygun (2023), who reported that teachers fear AI could weaken students' independent writing abilities if they become too dependent on it. This issue also ties into Vygotsky's (1978) sociocultural theory, which underscores the value of scaffolding and guided participation in learning. While AI tools can provide some form of scaffolding, they should not replace human interaction and direct feedback from teachers, which remain crucial for developing critical writing skills.

The teachers also raised critical concerns regarding authenticity and academic integrity in AI-assisted writing. They noted that some students submit AI-generated essays as their own original work, which raises significant ethical issues. This practice lacks original thought and analysis and thus undermines the academic value of the work. These practical concerns are substantiated by research. Kumar and Rose (2020) highlight the blurred lines of plagiarism when students use AI without critical engagement, while Elaiess and Ramadan (2024) warn that AI-generated texts can be difficult to distinguish from original work. Together, these findings underscore an urgent need to establish clear ethical frameworks to govern the use of AI in education and safeguard academic integrity. In conclusion, Libyan EFL teachers recognize AI as a practical aid for improving technical writing, but they emphasize that it requires careful supervision and balanced use. They see AI as neither inherently good nor bad; its value depends entirely on how it is applied within the learning environment. This implies that AI should serve as a supplement to teacher instruction and student effort, not a replacement for them. To manage the real risks of plagiarism and dependency, schools must establish straightforward policies and provide training for educators and students.

4.2. Challenges of Using AI Tools in Academic Writing

Teachers identified significant technological barriers that impede the effective integration of AI tools into writing instruction. Key issues included ranging from technological barriers to concerns about students' engagement and the integrity of the writing process.

a. Technological Barriers

Teachers identified significant technological barriers impeding the effective integration of AI tools into writing instruction. Key obstacles included unreliable internet access, insufficient infrastructure, and the high cost of software, which collectively limited accessibility for both educators and students. As one teacher emphasized, "*A significant barrier is the lack of reliable internet access and students' varying proficiency with technology, which can limit their ability to fully benefit from AI tools."* These findings reflect the broader contextual challenges in Libya, where limited technological infrastructure fundamentally restricts the consistent application of digital learning tools. They align with the findings of Song and Song (2023) and Othman (2025), who confirm that technological constraints are a primary barrier to AI adoption, particularly in resource-constrained environments like Libya. The SAMR model (Puentedura, 2013) provides a useful theoretical lens for this situation. It suggests that without robust digital infrastructure, AI's potential is stifled. While AI tools have the potential to redefine how academic writing is taught, their functionality in the Libyan context remains limited to basic substitution-level tasks, such as grammar checking, rather than deeper pedagogical transformation. Therefore, without significant investment in infrastructure, AI integration will remain at a superficial level, unable to drive the pedagogical transformation it promises.

b. Language Proficiency and Pedagogical Limitation of AI Tools

Teachers highlighted that students' varying levels of English proficiency significantly influence their ability to use AI tools effectively. As one of the teachers noted, *"Language proficiency can affect the results,"* explaining that students with lower proficiency often struggle to understand or correctly apply the AI's suggestions. This limitation means that the tools themselves are not sufficient to bridge fundamental language gaps.

Furthermore, teachers pointed out that even when language barriers are overcome, AI tools are inherently limited in addressing higher-order writing skills. For instance, one of the teachers stated that *"Students struggle most with formulating arguments, structuring essays, and using proper citations,"* and emphasized that while AI can assist with grammar, it cannot teach critical thinking or complex argumentation. This indicates that AI serves best for

surface-level corrections rather than deep, conceptual development. This risk is compounded by the potential for over-reliance; as one of the teachers warned, *"over-dependence on them can negatively affect students' skills,"* suggesting that unsupervised use could ultimately hinder the development of independent writing abilities.

These results are in consistent with empirical research studies of Zakaria and Ningrum (2023) who found that ChatGPT improves writing fluency but not argumentative complexity, and with Selim (2024) who confirmed that Chat GPT focuses on surface-level improvements over deep content engagement. This issue can be understood through the lens of constructivist learning theory (Egbert, 2005), which posits that learning is an active process of knowledge construction. When students passively accept AI-generated content, they bypass the critical struggle essential for cognitive growth. Therefore, for AI to be beneficial, its integration must be designed to promote active engagement and preserve the intellectual effort required for authentic learning.

In summary, Libyan EFL teachers view AI as a supplementary tool with inherent limitations. They report that technological barriers and students' language proficiency restrict its use to basic tasks, while its inability to foster critical thinking or argumentation poses a deeper pedagogical challenge. This creates a risk of over-reliance that may undermine academic integrity. Therefore, they advocate for a balanced approach—where AI supports language development without replacing the teacher's role in guiding intellectual engagement and ethical writing practices.

c. Limited Digital Literacy

Another recurring theme in this study is the critical need for structured AI literacy training for both teachers and students. Teachers observed that without proper guidance, students often misuse AI tools, treating them as shortcuts rather than learning aids. One of the teacher explained, *"Students frequently face challenges in forming a clear thesis and organizing their ideas logically... It's essential to teach students how to use AI as a learning tool, not just as a shortcut."* This thoughtful approach is supported by Matías and Zipitria (2023), who advocate for AI literacy programs to foster ethical and effective use.

From a theoretical standpoint, this challenge aligns with the TPACK framework (Mishra & Koehler, 2006), which posits that effective technology integration requires a nuanced blend of technological, pedagogical, and content knowledge. Therefore, for AI to be a true asset, institutions must provide foundational support through professional development workshops and resources, empowering teachers to utilize these tools for the development of their students' writing and critical thinking skills.

Based on the comprehensive analysis presented, it is evident that the integration of AI in Libyan EFL writing instruction presents a complex duality of significant potential and substantial challenges. Teachers recognize AI's clear benefits in supporting grammar, vocabulary, and writing structure, yet they consistently highlight critical limitations in technological infrastructure, its inability to foster critical thinking, and serious ethical concerns regarding over-reliance and academic integrity. These findings, therefore, necessitate concrete recommendations for the effective integration of AI in this specific educational context.

5. Conclusion

This study investigated the perspectives of nine EFL teachers on the use of AI tools and the challenges they encounter when implementing these tools in their academic writing classrooms. The results reveal that the teachers recognize the value of AI in enhancing students' writing efficiency and providing immediate feedback on grammar and structure. However, some teachers hold constrained views of the technology, believing it is primarily useful for surface-level corrections rather than fostering higher-order thinking. Additionally, the results reveal significant practical challenges in its implementation, such as unreliable technological infrastructure, concerns about academic integrity, and the risk of student over-reliance. Based on these findings, several recommendations are offered for teachers, educational institutions, and policy-makers to ensure the pedagogically sound integration of AI.

Based on the findings of this study, a multi-level approach is recommended to ensure the effective integration of AI in academic writing instruction. Teachers should guide students in using AI as a supplementary tool while emphasizing critical evaluation and preserving academic integrity. Students must develop AI literacy to use these tools ethically, balancing technological assistance with independent writing practice. At the institutional level, educational authorities should establish clear usage policies, invest in technological infrastructure and training programs, and promote further research on AI's pedagogical impact. Together, these measures can harness AI's potential while safeguarding the development of essential writing and critical thinking skills.

This research study offers valuable insights into EFL teachers' perspectives on using AI tools in academic writing. Nonetheless, it has some limitations, such as relying only on qualitative interview data from a relatively small sample of Libyan EFL teachers and the constrained technological infrastructure shaping their experiences, which may affect the generalizability of the findings. To build upon this work, future research could employ a mixed-methods approach and expand to incorporate student perspectives, particularly through longitudinal studies that track AI's long-term impact on writing proficiency and critical thinking. Further investigation is also needed to develop effective frameworks for ethical AI integration and teacher training programs that can adapt to this rapidly evolving technological landscape.

Compliance with ethical standards

Disclosure of conflict of interest

The authors declare that they have no conflict of interest.

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