

AI LITERACY IN ACADEMIC WRITING: INSIGHTS FROM GENERATIVE AI WORKSHOP

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Abstract. This mixed-methods study examines participant feedback from a pre-conference workshop (N = 18). The workshop was designed to enhance participants' understanding of generative AI tools and their application in academic writing. Quantitative findings indicate overwhelmingly high satisfaction across key categories, including overall quality, relevance, facilitator knowledge, interactivity, and learning materials. These results suggest that the workshop effectively met participants' expectations and learning needs. Qualitative analysis of open-ended responses provides deeper insights into participants' experiences. Participants particularly valued the hands-on engagement with AI tools, the interactive and collaborative learning environment, and the facilitator's expertise in guiding ethical and effective AI use. At the same time, several areas for improvement were identified, including the need for extended practice time, more structured and accessible materials, and more in-depth discussion on the limitations and ethical implications of generative AI tools. Overall, the findings highlight the potential of AI-integrated academic writing workshops to enhance writing competence, critical thinking, and ethical awareness. This study contributes to the growing discourse on AI literacy in higher education and offers practical implications for designing future AI-supported pedagogical interventions.

Keywords: *academic writing, generative AI, AI literacy, workshop evaluation, higher education, academic integrity*

Introduction

The rapid proliferation of generative artificial intelligence (AI) tools such as large-language models (LLMs) and text-generation systems is transforming academic writing contexts in higher education (Narayanan, 2024). Scholars now have access to tools that can assist with idea generation, drafting, revision, and editing of texts, raising both opportunities and challenges for teaching and learning academic writing. Simultaneously, institutions are grappling with issues of academic integrity, originality, authorship and the ethical use of AI in scholarly work (Kotsis, 2024). Academic writing is a crucial skill for researchers, requiring the ability to structure arguments, use disciplinary conventions, reflect critically and communicate clearly. When AI is introduced into this process, the role of human writers, educators and workshop facilitators shifts: rather than simply teaching writing mechanics, there is a need to build AI literacy, that is, understanding how to use, evaluate, and ethically apply AI tools in academic writing. Workshops that integrate generative AI can support these aims, but

empirical research on how participants experience such workshops, particularly in terms of perceived value, engagement and suggestions for improvement remains limited.

This study investigates participant feedback from a workshop titled “From Prompts to Publications: Leveraging AI for Ethical and Effective Academic Writing”, delivered at a pre-conference. The feedback data from 18 participants are used to explore the following objectives: (1) To assess participants’ overall satisfaction with the workshop; (2) To identify what aspects of the workshop participants valued most; (3) To determine participants’ suggestions for improvement; and (4) To draw implications for designing and delivering AI-integrated academic writing workshops, particularly in higher education and inclusive learning contexts. By focusing on participant perceptions and experiences, this study contributes to the literature on AI literacy in academic writing and offers practical insights for educators and writing programme designers.

Literature review

Generative AI, academic writing and ethical considerations

Generative AI tools, including text-generation models, are increasingly used across education and research contexts. For instance, Alharbi (2023) found that AI writing tools serve as supplementary teaching resources, aiding grammar checking, paraphrasing, and content generation. Similarly, the report by Shah (2023) notes that students and educators are still developing the knowledge and skills required to use AI effectively and responsibly in writing contexts. However, issues such as over-reliance on AI, diminished development of higher-order writing skills, authorship ambiguity, and plagiarism or “AI-giarism” are widely discussed (Bui and Tong, 2025). Thus, integrating AI into academic writing demands not only technical literacy but also critical awareness and ethical sensitivity. In today’s era, “AI literacy” has emerged as a vital concept. According to Biagini (2025), AI Literacy in Teaching and Learning (ALTL) involves technical understanding of AI, the ability to critically evaluate AI applications, practical application, and ethical awareness. Further research indicates that higher levels of AI literacy correlate with better writing performance and increased self-efficacy when using AI tools (Shen and Tao, 2025). Moreover, studies show that faculty and educators’ AI literacy also matters. A study by Yim and Wegerif (2024) found that a range of factors influence educators’ AI literacy, such as institutional support, professional development, and attitudes. The implications for workshop design are significant, as to effectively teach AI-integrated writing, presenters must scaffold technical, evaluative, practical and ethical dimensions. Workshops targeting academic writing with AI integration are still emergent in the literature. Santos (2024) in his study investigated the impact of a writing workshop for university students, highlighting how hands-on interaction with generative AI facilitated idea generation and reduced writer’s block, while also emphasising the indispensable role of human critical thinking in writing tasks. In other words, workshops that combine practical experience with reflective discussion may help build AI competencies. A systematic review by Aljuaid (2024) argued that while AI tools are increasingly embedded in writing instruction, there remains a need to evaluate whether they are replacing traditional writing courses, how they support writing competence, and how they might affect integrity and originality. Moreover, Tajik (2025) reported positive impacts of AI-powered language learning tools on writing performance, but emphasised that human instructional engagement remains important.

Materials and Methods

Research design, workshop context and participants as well as data collection procedure

This study employed a mixed-methods design that integrated both quantitative and qualitative data to provide a comprehensive understanding of participants' experiences in the pre-conference workshop "From Prompts to Publications: Leveraging AI for Ethical and Effective Academic Writing." The mixed-methods approach was adopted to triangulate numeric satisfaction scores with participants' qualitative feedback, thereby offering both breadth and depth of insights (Creswell and Plano Clark, 2023). Quantitative data were used to gauge general satisfaction and perceived value across several dimensions, while qualitative comments were analyzed thematically to uncover participants' nuanced perceptions, highlights, and suggestions for improvement. The study was exploratory in nature, aimed at identifying emerging patterns and implications for the design of future AI-integrated academic writing workshops. The combination of descriptive statistics and thematic analysis allowed for a balanced interpretation of how educators and researchers perceive the integration of generative AI tools into academic writing practices. The workshop was conducted as part of the International Digital Education Conference (IDEC) 2025 pre-conference program. The session, facilitated by a speaker, focused on demonstrating ethical and effective ways to integrate generative AI tools, particularly large-language models such as ChatGPT into academic writing processes. The objectives of the workshop were to (1) introduce participants to AI-driven writing support tools, (2) demonstrate prompt-based writing and revision strategies, and (3) discuss ethical considerations related to AI use in scholarly communication. A total of 18 participants attended the workshop and voluntarily provided feedback at the end of the session. Participants were mainly academics, postgraduate students, and early-career researchers from education and language-related disciplines. Their backgrounds provided a relevant context for exploring how professionals engaged in academic writing perceive and respond to AI-assisted learning opportunities.

Data were collected immediately after the workshop through a structured feedback form consisting of both closed-ended and open-ended items. (1) Quantitative Items: Participants rated five aspects of the workshop on a 5-point Likert scale (1 = Poor to 5 = Excellent) on overall quality, relevance of content, facilitator knowledge, level of interactivity, and usefulness of materials. (2) Additionally, a binary item asked whether participants would be interested in attending similar workshops in the future ("Yes" or "No"). (3) Qualitative Items: Two open-ended questions invited participants to elaborate on their experiences: "What did you find most valuable in the workshop?" as well as "What suggestions do you have for improvement?" The inclusion of both question types aligns with the mixed-methods framework, allowing quantifiable satisfaction data to be complemented with rich qualitative descriptions of participant perspectives (Fetters and Molina-Azorin, 2021).

Data analysis procedure, trustworthiness and validity as well as ethical considerations

Quantitative responses were analyzed using descriptive statistics, including frequencies, percentages, and mean scores for each item. These analyses provided a general overview of participant satisfaction and interest levels. Given the small sample size (N = 18), the goal was not inferential generalization but to capture trends in

perceived workshop effectiveness. Meanwhile, qualitative responses were analyzed using a thematic analysis approach (Braun and Clarke, 2021). The process involved several stages: (1) Familiarization: All responses were read multiple times to gain an overall sense of participant sentiment. (2) Initial Coding: Short descriptive codes were generated for key ideas, such as “hands-on experience,” “facilitator clarity,” “time constraints,” and “need for printed materials.” (3) Theme Development: Codes were grouped into broader thematic categories reflecting participants’ perceptions of Strengths and Areas for Improvement. (4) Review and Refinement: Themes were reviewed to ensure internal coherence and mutual exclusivity. (5) Interpretation: Themes were interpreted in relation to the workshop objectives, literature on AI literacy and academic writing instruction, and pedagogical best practices for technology-enhanced learning. This inductive process allowed patterns to emerge naturally from the data while maintaining analytic rigor and connection to the research purpose.

To enhance the credibility of the findings, several measures were implemented. Triangulation was achieved by combining quantitative ratings with qualitative insights, ensuring that conclusions were supported by multiple forms of evidence. Researcher reflexivity was maintained throughout the analysis, acknowledging potential bias given the facilitator’s dual role as instructor and researcher. Member checking was not conducted due to the anonymity of responses; however, recurring patterns across participants provided confidence in the reliability of the themes. Descriptive transparency was also upheld by detailing analytic steps, as recommended by Siewert (2021). Ethical guidelines were strictly followed in conducting this study. Participation in the feedback survey was entirely voluntary, and informed consent was implied through the act of submission. Participants were informed that their responses would be used anonymously for both workshop evaluation and research purposes. No personal identifiers were collected, ensuring confidentiality. The study complied with general ethical standards for educational research, emphasizing respect for participants, data security, and responsible reporting.

Results and Discussion

Quantitative findings

The quantitative data from the post-workshop feedback survey revealed overwhelmingly positive responses across all evaluated dimensions. All or nearly all participants assigned the highest possible rating of 5 out of 5 (“Excellent”) for each of the following categories: Overall Quality, Relevance, Facilitator Knowledge, Interactivity, and Materials (*Table 1*). This indicates a consistently strong perception of the workshop’s value and effectiveness. The exceptionally high mean scores across dimensions suggest that the session content, delivery, and structure successfully met participants’ expectations and learning needs. In addition, seventeen out of eighteen participants (approximately 94.4%) responded “Yes” when asked whether they would be interested in attending a similar workshop in the future. This near-unanimous expression of continued interest reflects both the participants’ satisfaction with the current experience and their perceived relevance of AI-integrated writing support for their future academic or professional development. The quantitative results, therefore, suggest that the workshop effectively achieved its goals of introducing participants to the ethical and practical use of AI in academic writing while engaging them in an accessible and positive learning environment.

Table 1. Summary of participant ratings (N = 18).

Dimension	Mean	SD	% rating 5 (Excellent)
Overall Quality	5.00	0.00	100%
Relevance	5.00	0.00	100%
Facilitator Knowledge	5.00	0.00	100%
Interactivity	4.94	0.24	94%
Materials	4.89	0.32	89%

Qualitative findings

Thematic analysis of participants’ open-ended responses revealed two overarching categories: Strengths (Most Valued Aspects) and Suggestions for Improvement. Four main themes emerged under the “Strengths” category, while four were identified as key areas for enhancement.

Strengths (Most valued aspects)

Practical, hands-on application

A recurring theme across participants’ feedback was the appreciation for the workshop’s practical orientation. Many respondents described the live demonstrations of AI tools, such as prompt creation and text generation, as particularly beneficial. Participants noted that seeing “how to do it” step by step helped them connect theory with real-world writing practices. As one participant highlighted, “Practical tips, samples of prompts, showed how to do it in a specific example...” This emphasis on experiential learning aligns with previous findings that hands-on exposure enhances participants’ confidence and competence in adopting AI tools for academic writing (Narayanan, 2024).

Interactive and engaging format

Participants repeatedly praised the interactive design of the session. The inclusion of live question-and-answer segments, spontaneous demonstrations, and audience participation helped sustain engagement and made the session dynamic. Feedback indicated that the interactive format fostered a sense of community and co-learning, as participants could clarify doubts in real time. This finding supports recent pedagogical perspectives that view interactivity as a key factor in learner satisfaction within AI-mediated learning environments (Santos, 2024).

Facilitator expertise and delivery

Another prominent strength identified was the facilitator’s knowledge and clarity of delivery. Respondents appreciated the facilitator’s ability to simplify complex AI concepts, maintain an approachable demeanor, and deliver explanations at an appropriate pace. The feedback suggests that participants valued both the depth of content knowledge and the human qualities of empathy and responsiveness, echoing calls for “human-in-the-loop” facilitation in AI literacy education (Shah, 2023).

Relevant and modern content

Participants consistently described the workshop content as timely, relevant, and aligned with their professional needs. The topic of using generative AI in academic writing resonated strongly with attendees, many of whom noted its applicability to their teaching, research, and publication activities. Comments such as “Very current topic” and “Directly related to my writing work” illustrate how the workshop effectively bridged current technological trends with academic communication needs. This is consistent with recent literature emphasizing the necessity of integrating AI literacy into higher education writing support programs (Shen & Tao, 2025).

Suggestions for improvement

Increase Hands-On/Practice Time: While participants appreciated the demonstrations, several suggested extending the practical component to allow for independent experimentation. Respondents requested more time to try out prompts, generate texts, and explore AI tools under guidance. This feedback underscores the importance of balancing demonstration with self-directed exploration, a design consideration noted in recent studies on AI-enhanced learning (Alharbi, 2023). **Enhance Materials:** A few participants recommended providing printed or digital materials, such as prompt samples, worksheets, or pre-distributed slides, to facilitate note-taking and follow-along activities. These materials could serve as post-workshop references for continued learning. Such feedback aligns with previous research suggesting that scaffolded resources enhance comprehension and transfer of AI-related knowledge to real-world contexts (Kotsis, 2024). **Refine Time Management:** Some comments mentioned the need for more balanced time allocation between content delivery, Q&A, and practice. While the session was perceived as informative and engaging, several participants felt that certain segments were rushed. Adjusting time for reflection and group discussion could further deepen understanding, echoing pedagogical frameworks that advocate reflective practice in AI-assisted learning (Shen and Tao, 2025). **Address Limitations of AI Tools:** A smaller yet significant theme concerned the desire for more discussion of AI’s ethical and practical limitations. Participants wanted clearer guidance on when AI tools might produce inaccurate or biased outputs, as well as discussion of responsible and transparent use. This aligns with broader debates about critical AI literacy, which emphasize equipping learners to question AI-generated content and maintain academic integrity (Yim and Wegerif, 2024).

This study examined participant feedback from the workshop “From Prompts to Publications: Leveraging AI for Ethical and Effective Academic Writing” and identified key factors that contributed to participant satisfaction and learning. Quantitative results showed uniformly high ratings across all evaluation categories, indicating that participants viewed the workshop as relevant, informative, and effectively delivered. The qualitative findings provided deeper insights, highlighting participants’ appreciation for the hands-on approach, interactive delivery, facilitator expertise, and contemporary content focus. Simultaneously, participants called for more extensive practice time, improved instructional materials, and critical engagement with AI tool limitations. Taken together, these findings suggest that while the workshop successfully addressed the immediate goal of introducing participants to ethical and effective use of AI in academic writing, further enhancement is possible through greater emphasis on applied learning and critical reflection. These results align with recent research emphasizing the importance of active, critical, and ethically guided learning when integrating AI into higher education (Santos, 2024; Shah, 2023). The results underscore

the growing recognition of AI literacy as a crucial component of academic writing education. In particular, participants' enthusiasm for hands-on demonstrations reflects the pedagogical effectiveness of learning by doing in AI-supported contexts. Tajik (2025) found that students who engage directly with AI tools through guided practice exhibit stronger writing confidence and metacognitive awareness than those who merely observe demonstrations. Similarly, the current findings suggest that participants benefited from experiencing prompt construction, text generation, and editing processes in real time.

Moreover, participants' emphasis on the relevance and timeliness of the workshop aligns with recent studies noting a surge in educators' interest in AI-facilitated writing instruction (Bui and Tong, 2025; Alharbi, 2023). The perceived relevance of AI literacy training highlights an important pedagogical shift: academic writing is no longer solely about mastering rhetorical or grammatical forms, but about learning to collaborate with intelligent writing assistants ethically and strategically (Aljuaid, 2024). In this sense, the workshop contributed to bridging a critical gap in academic writing pedagogy by contextualizing generative AI not as a threat to academic integrity but as a pedagogical ally when used transparently and responsibly. A noteworthy theme emerging from the feedback was participants' interest in learning more about the limitations of AI tools. This reflects an emerging dimension of AI literacy and critical AI awareness, which involves understanding not only how to use AI effectively but also how to evaluate its reliability, biases, and ethical implications. Recent scholarship emphasizes that critical thinking must be redefined in the age of generative AI to include the capacity to interrogate machine outputs and maintain intellectual ownership of ideas (Kotsis, 2024). Participants' calls for more discussion of AI limitations echo this sentiment. They indicate a desire to move beyond operational proficiency toward reflective engagement with AI-generated content. This finding aligns with Narayanan (2024), who argue that higher education should emphasize epistemic integrity, which is the ability to critically evaluate AI-mediated knowledge claims. Integrating this reflective dimension into future workshops would strengthen participants' capacity to balance creativity, efficiency, and ethical awareness in their writing processes.

Furthermore, ethical awareness is closely tied to concerns about academic integrity in the AI era. Scholars such as Biagini (2025) warn that as AI-generated content becomes more sophisticated, educators must provide explicit guidance on responsible acknowledgment of AI use. The current study's findings support this need: participants expressed strong interest in learning not only how to use AI tools but also how to cite or acknowledge them appropriately, underscoring the importance of developing transparent academic conventions. The feedback also provides actionable insights for designing future AI-integrated academic writing workshops. First, the call for more hands-on practice suggests that effective AI literacy training should be structured as experiential learning. Incorporating breakout activities, guided prompt engineering sessions, and peer review of AI-generated drafts can deepen participants' skills and confidence (Yim and Wegerif, 2024). Second, the suggestion to enhance materials indicates a need for better scaffolding. Pre-workshop materials, such as sample prompts, ethical guidelines, or annotated examples can provide participants with conceptual grounding, while post-workshop resources can support continued self-directed exploration. Such scaffolding has been shown to promote sustained learning transfer in AI-assisted instruction (Yim and Wegerif, 2024). Third, improved time management and pacing can ensure that reflection and application are balanced. Allocating sufficient

time for participant-led experimentation and discussion of AI's limitations would create a more holistic learning experience. As the literature notes, optimal AI literacy development requires not just technical proficiency but also reflective dialogue (Shah, 2023).

Finally, discussions on AI ethics and authorship should be systematically incorporated. Beyond technical demonstrations, workshops should include case studies of ethical dilemmas, examples of responsible citation, and strategies for distinguishing between AI-generated and human-authored text. This approach would cultivate integrity-oriented AI users rather than passive consumers of machine-generated text. The findings contribute to the broader discourse on the role of AI in higher education, particularly in developing 21st-century skills such as critical thinking, creativity, and digital literacy. Participants' overwhelmingly positive perceptions of the workshop demonstrate that educators and learners are ready to engage with AI technologies constructively when provided with clear guidance and ethical frameworks. As AI becomes increasingly embedded in academic and professional writing, training programs like this workshop can play a transformative role in fostering responsible and effective AI integration. Additionally, the results suggest that professional development for educators should prioritize AI literacy for teaching. Facilitators must not only understand how to use AI tools but also how to frame their use within pedagogically sound and ethically responsible contexts (Alharbi, 2023). By equipping educators with these skills, institutions can ensure that AI tools enhance rather than undermine academic rigor and originality.

Conclusion

This study examined participant feedback from a pre-conference workshop that explored the ethical and effective integration of AI tools in academic writing. Both quantitative and qualitative analyses revealed high participant satisfaction and valuable insights into effective design elements for AI-integrated learning experiences. Participants particularly valued the workshop's practical demonstrations, interactivity, facilitator expertise, and relevance to current academic needs. At the same time, their constructive suggestions, such as the need for more practice time, enhanced materials, and deeper discussions of AI's ethical boundaries, underscore the importance of designing workshops that combine technical skill development with critical reflection. The findings highlight that AI-integrated writing workshops can serve as powerful platforms for developing writing competence, critical thinking, and ethical awareness in the age of generative AI. Future research should expand this preliminary analysis by examining longitudinal impacts, such as changes in participants' writing practices or perceptions of AI use over time. Comparative studies across different disciplines or cultural contexts may also provide further insight into how educators can effectively balance innovation, integrity, and inclusivity in AI-enhanced academic writing instruction.

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Conflict of interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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