

Navigating ChatGPT in EFL Academic Writing: Pre-Service Teachers' Experiences, Concerns, and Pedagogical Reflections

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Abstract: The growing presence of generative artificial intelligence in higher education has reshaped how academic writing is learned, practised, and taught. This study explores pre-service teachers' experiences of using ChatGPT in academic writing and examines their pedagogical reflections on its possible integration into EFL writing instruction. While previous studies have widely discussed students' use of ChatGPT as a writing assistant, limited attention has been given to pre-service teachers, who occupy a dual position as language learners and future educators. Using a narrative inquiry design, this study involved eight EFL pre-service teachers from a private university in Indonesia. Data were collected through semi-structured interviews and analyzed thematically. The findings show that ChatGPT supported participants in generating ideas, organizing texts, improving language accuracy, and increasing writing efficiency. However, participants also expressed concerns about factual inaccuracies, fabricated references, academic integrity, and over-reliance, which may weaken creativity, learner agency, and independent thinking. Importantly, the participants did not view these challenges merely as limitations, but reframed them as pedagogical opportunities. They proposed strategies such as combining AI-assisted and AI-free writing tasks, integrating fact-checking activities, comparing AI feedback with human feedback, and encouraging students to justify their use of AI-generated suggestions. These findings suggest that pre-service teachers are developing critical pedagogical reasoning in response to generative AI. The study highlights the need to integrate AI literacy into teacher education programs to promote ethical, reflective, and pedagogically informed uses of ChatGPT in EFL academic writing classrooms.

Keywords: ChatGPT, EFL academic writing, AI-assisted writing, pre-service teachers, AI literacy, pedagogical reflection.

1. Introduction

Academic writing is widely recognized as one of the most demanding skills for English as a Foreign Language (EFL) learners because it requires the simultaneous control of linguistic, cognitive, rhetorical, and metacognitive abilities. Unlike general writing, academic writing expects learners to generate relevant ideas, organize arguments logically, use appropriate vocabulary and grammar, maintain coherence and cohesion, and follow disciplinary conventions. Hyland (2003) argues that second language writing is not only a matter of linguistic accuracy but also a complex social and rhetorical practice shaped by purpose, audience, and

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context. In higher education, academic writing plays an especially important role because it functions not only as a medium of communication but also as a means of assessing students' critical thinking, knowledge construction, and scholarly competence. [Bailey \(2019\)](#) further emphasizes that academic writing competence can support students' academic success and future professional development. For EFL learners, however, producing academic texts remains challenging due to limited vocabulary, grammatical difficulties, insufficient exposure to academic discourse, and problems in developing and organizing ideas. [McNamara et al. \(2010\)](#) highlight that linguistic features such as lexical sophistication, syntactic complexity, and cohesion are closely related to writing quality, while [Derakhshan and Shakki \(2018\)](#) note that learner-related factors may influence students' ability to perform successfully in English learning contexts. These challenges are particularly evident in teacher education programs, where pre-service teachers are expected to develop their own academic writing competence while also preparing to teach writing in their future classrooms.

The rapid development of artificial intelligence (AI) is reshaping the landscape of language learning and writing instruction. [Sumakul et al. \(2022\)](#) suggest that AI-based tools are increasingly influencing teaching and learning practices by offering automation, feedback, and personalized learning opportunities. In writing classrooms, AI-powered writing tools have been used to support brainstorming, drafting, paraphrasing, proofreading, revising, and feedback generation. [Marzuki et al. \(2023\)](#), for example, found that AI writing tools can influence the content and organization of EFL students' writing by providing immediate assistance during the writing process. Tools such as QuillBot, Wordtune, Copy.ai, Paperpal, and other AI-based platforms have changed how students approach writing tasks by providing language support and automated suggestions. Among these tools, ChatGPT has attracted particular attention because of its generative and conversational capabilities. It can produce explanations, suggest outlines, revise sentences, provide examples, generate feedback, and respond interactively to users' prompts. These features make ChatGPT potentially useful for EFL academic writing, especially for learners who need assistance in generating ideas, improving language accuracy, organizing arguments, and revising written texts.

In writing instruction, ChatGPT offers several pedagogical possibilities. [Mizumoto and Eguchi \(2023\)](#) show that AI language models have potential for supporting automated writing assessment, while [Boudouaia et al. \(2024\)](#) report that ChatGPT can enhance EFL writing learning by assisting learners in idea development, language improvement, and text revision. ChatGPT can help students identify grammatical errors, improve sentence structure, expand vocabulary, enhance coherence, and develop ideas during the pre-writing and drafting stages. It can also function as a source of formative feedback, allowing learners to review and revise their writing before receiving teacher feedback. However, integrating ChatGPT into academic writing is not merely a technical issue. It also raises important questions about authorship, originality, academic integrity, learner agency, and the changing role of teachers in writing instruction. [Guo and Wang \(2023\)](#) argue that the emergence of ChatGPT requires teachers to reconsider their feedback practices and their roles in supporting EFL writing. Similarly, [Mahapatra \(2024\)](#) suggests that ChatGPT integration should be accompanied by pedagogical attention to students' writing development rather than a narrow focus on text production. Therefore, ChatGPT should not be understood only as a writing assistant, but also as a pedagogical issue that requires careful reflection.

Previous studies have documented both the affordances and limitations of ChatGPT in academic writing. [Benuyenah \(2023\)](#) discusses the prospects and epistemic threats of ChatGPT use in higher education assessment, particularly in relation to knowledge production and academic integrity. [Dergaa et al. \(2023\)](#) also warn that AI-generated writing may create challenges related to authorship, transparency, and ethical academic practice. In a similar vein, [Lingard \(2023\)](#) illustrates both the capacity and limitations of ChatGPT for academic writers, emphasizing that its fluent output should not be mistaken for reliable scholarly reasoning. In second-language writing contexts, [Yan \(2023\)](#) found that ChatGPT influenced learners' writing practices, while [Teng \(2024\)](#) reported that students perceived ChatGPT as a supportive tool for feedback, motivation, and engagement. [Nguyen et al. \(2024\)](#) further show that students interact with generative AI through various human-AI collaboration patterns, suggesting that AI-assisted writing involves more than

simply generating texts. These studies indicate that ChatGPT has become increasingly relevant in academic writing practices across diverse higher education contexts.

In the Indonesian EFL context, emerging research has also begun to examine students' use of ChatGPT for writing. [Werdiningsih et al. \(2024\)](#) found that Indonesian EFL students used ChatGPT to improve writing quality, generate ideas, and develop vocabulary. [Nugroho et al. \(2024\)](#) similarly reported that students benefited from ChatGPT in translation, brainstorming, writing accuracy, writing efficiency, and practical writing support. These studies contribute important insights into how Indonesian EFL learners engage with ChatGPT as a writing tool. However, much of the existing research has focused primarily on students as users of AI-assisted writing technology. Less attention has been given to pre-service teachers, even though they occupy a distinctive position as both current learners and future educators.

This gap is significant because pre-service teachers' experiences with ChatGPT may influence not only their own academic writing practices but also their future pedagogical decisions. As EFL learners, pre-service teachers may use ChatGPT to support vocabulary development, grammar correction, idea generation, organization, and revision. As future teachers, they are also expected to make informed decisions about when, how, and whether to integrate ChatGPT into writing instruction. [Kohnke et al. \(2023\)](#) argue that language teachers need to understand both the pedagogical potential and limitations of ChatGPT to use it meaningfully in language teaching and learning. [Hockly \(2023\)](#) also emphasizes that AI in English language teaching brings both opportunities and risks, requiring teachers to develop critical awareness rather than adopting AI tools uncritically. More recently, [Moorhouse and Kohnke \(2024\)](#) highlight the need to consider the implications of generative AI for initial language teacher education. These arguments suggest that understanding pre-service teachers' perspectives is important because they represent a future generation of educators who will need to make pedagogically and ethically informed decisions about AI-assisted writing.

Moreover, the integration of ChatGPT into academic writing raises concerns that are especially relevant for pre-service teachers. Issues such as factual inaccuracies, fabricated references, plagiarism, over-reliance, and uncritical acceptance of AI-generated texts are not only technological limitations but also pedagogical challenges. [Walters and Wilder \(2023\)](#) found that ChatGPT can generate fabricated and erroneous bibliographic citations, which is particularly problematic in academic writing contexts. [Dergaa et al. \(2023\)](#) similarly caution that AI-generated texts may blur boundaries between human authorship and machine-generated content. Future teachers therefore need to understand how to design writing tasks that preserve students' originality, creativity, critical thinking, and learner autonomy while still allowing them to benefit from AI support. They also need to consider how students can be taught to verify AI-generated information, evaluate sources, compare feedback, and justify their writing decisions. In this sense, the limitations of ChatGPT can be reframed as pedagogical opportunities for developing critical AI literacy and responsible academic writing practices.

Despite the growing body of research on ChatGPT in writing, limited empirical attention has been paid to how EFL pre-service teachers make sense of their experiences with ChatGPT and how these experiences shape their pedagogical reflections. Existing studies have tended to emphasize students' perceptions, writing performance, or practical use of ChatGPT, while the voices of pre-service teachers as future writing instructors remain underexplored. This study addresses this gap by examining pre-service teachers' narratives of using ChatGPT in academic writing and their reflections on its possible integration into EFL writing instruction. By focusing on their lived experiences and pedagogical concerns, the study offers insight into how future teachers begin to develop critical, ethical, and pedagogically informed understandings of AI-assisted writing.

Therefore, this study aims to explore EFL pre-service teachers' experiences of using ChatGPT in academic writing and to examine the pedagogical insights and concerns that emerge from their reflections. Specifically, this study investigates how EFL pre-service teachers experience using ChatGPT in academic writing and what pedagogical insights and concerns emerge from their reflections on its use. By addressing these questions,

this study contributes to the growing discussion on generative AI in language education in three ways. First, it extends research on AI-assisted writing by foregrounding the perspectives of pre-service teachers, whose roles as both learners and future educators remain underrepresented. Second, it provides context-specific insights from Indonesian EFL teacher education, where students face linguistic and pedagogical challenges in academic writing. Third, it highlights the need to integrate AI literacy into teacher education programs so that future teachers can guide students in using ChatGPT critically, ethically, and reflectively in academic writing classrooms.

2. Method

2.1 Research Design

This study employed a qualitative narrative inquiry design to explore EFL pre-service teachers' experiences of using ChatGPT in academic writing and their pedagogical reflections on its possible integration into writing instruction. Narrative inquiry was considered appropriate because the study focused on how participants made sense of their lived experiences and connected those experiences with their developing professional identities as future English teachers. As [Clandinin \(2006\)](#) explain, narrative inquiry is concerned with experience as it is lived, told, and interpreted within particular personal and social contexts. In line with this perspective, the present study did not aim to measure ChatGPT's effectiveness or quantify its impact on writing performance. Instead, it examined how pre-service teachers narrated their use of ChatGPT, how they interpreted its benefits and limitations, and how these interpretations informed their pedagogical reasoning about AI-assisted writing. This design also aligned with [Creswell and Poth's \(2018\)](#) view that narrative inquiry is well-suited to studies seeking to understand participants' stories and the meanings they attach to specific educational experiences.

2.2 Research Context and Participants

The study was conducted in an English education program at a private university in Indonesia. This context was relevant because the participants were positioned both as EFL learners engaged in academic writing and as pre-service teachers preparing to teach English. The participants were eight EFL pre-service teachers who had used ChatGPT for academic writing-related activities, including brainstorming ideas, improving grammar and vocabulary, organizing texts, revising sentences, and checking writing quality. They were recruited through purposive sampling because the study required participants with direct experience of the phenomenon under investigation and the ability to provide information-rich accounts. Purposive sampling is commonly used in qualitative inquiry when participants are selected based on their ability to illuminate the research problem in depth ([Patton as cited in Ortiz, 2015](#)).

The inclusion criteria were that participants had to be enrolled in an English teacher education program, had used ChatGPT for academic writing, and were willing to reflect on its possible pedagogical use in EFL writing instruction. Participants who had no experience using ChatGPT for academic writing were excluded because they could not provide direct experiential narratives relevant to the research questions. To protect confidentiality, the participants were coded as P1, P2, P3, P4, P5, P6, P7, and P8. The number of participants was considered appropriate for narrative inquiry because qualitative narrative studies prioritise depth, richness, and contextual detail rather than statistical representation. Data adequacy was determined by the relevance, depth, and recurrence of participants' narratives in relation to the research questions.

2.3 Data Collection

Data were collected through semi-structured interviews. This method was selected because it allowed the researchers to explore participants' experiences in depth while maintaining flexibility to ask follow-up questions when clarification or elaboration was needed. Semi-structured interviews are particularly useful in qualitative studies because they balance consistency across participants with openness to unexpected insights. The interview protocol was adapted from [Kohnke et al. \(2023\)](#) and adjusted to the focus of the

present study. The questions addressed two main areas: participants' experiences of using ChatGPT in academic writing and their reflections on its pedagogical implications for EFL writing instruction. During the interviews, participants were asked to describe how they used ChatGPT during different stages of writing, including idea generation, drafting, language improvement, organisation, revision, and feedback-seeking. They were also invited to reflect on the limitations and risks of ChatGPT, such as factual inaccuracies, fabricated references, plagiarism, over-reliance, learner autonomy, and responsible AI use. Follow-up questions were used to obtain more detailed explanations of participants' responses and to clarify meanings when necessary. Before the interviews, the researchers contacted potential participants through WhatsApp, explained the purpose of the study, described the interview procedures, and informed them of their rights as research participants. Participation was voluntary, and all participants signed an informed consent form before data collection. With participants' permission, the interviews were audio-recorded and transcribed for analysis. Identifying information was removed from the transcripts, and participant codes were used throughout the reporting of the findings.

2.4 Data Analysis

The data were analysed using thematic narrative analysis. This approach was used because the study sought to identify recurring patterns across participants' narratives while still preserving the meaning of their individual experiences. Thematic analysis provides a flexible yet systematic procedure for identifying, analysing, and reporting patterns of meaning within qualitative data. In this study, thematic analysis was applied narratively by attending not only to repeated themes but also to how participants connected their experiences as ChatGPT users with their emerging pedagogical concerns as future teachers.

The analysis was conducted in several stages. First, the researchers read the interview transcripts repeatedly to become familiar with the data and to understand the overall meaning of participants' narratives. Second, meaningful statements about ChatGPT's use in academic writing and its pedagogical implications were coded. Initial codes included idea generation, grammar support, vocabulary assistance, writing organisation, writing efficiency, feedback use, factual inaccuracy, fabricated references, academic integrity, over-reliance, learner autonomy, fact-checking, and AI-free writing tasks. Third, similar codes were grouped into broader categories. For instance, codes related to brainstorming, grammar support, vocabulary assistance, and text organisation were grouped as ChatGPT-supported writing practices. In contrast, codes related to factual inaccuracies, fabricated references, plagiarism concerns, dependency, and verification practices were grouped as pedagogical concerns and responsible AI use. Fourth, the categories were refined into themes that addressed the research questions. Throughout the analysis, the researchers returned to the transcripts to ensure that the themes were grounded in participants' accounts. Representative excerpts were then selected to illustrate the final themes in the findings section.

2.5 Trustworthiness

Several strategies were used to enhance the study's trustworthiness. Following [Tobin and Begley \(2004\)](#) criteria for qualitative rigour, credibility was supported through repeated engagement with the transcripts, careful comparison of participants' responses, and the use of representative quotations to connect the findings with the data. Dependability was strengthened by maintaining an audit trail that documented the research procedures, including the interview protocol, transcripts, coding notes, categories, and final themes. Confirmability was addressed by ensuring that the interpretations were grounded in participants' narratives rather than the researchers' assumptions. To support transferability, the study provided a clear description of the research context, participant criteria, data collection process, and analytical procedures, enabling readers to assess the relevance of the findings to similar EFL teacher education contexts. In addition, the researcher's reflexivity was also considered during the analysis. Because researchers' assumptions and prior knowledge can influence qualitative interpretation, the researchers engaged in reflective discussions during coding and theme development. Analytical decisions were documented to ensure that theme development

remained transparent and traceable. These procedures strengthened the study's credibility and transparency without detaching the analysis from participants' lived experiences.

3. Findings and Discussion

This section presents the findings according to the two research questions. To provide a clearer overview of the data, the findings are first summarised in thematic tables and then elaborated through participants' narratives. The first part addresses pre-service teachers' experiences with ChatGPT in academic writing. In contrast, the second part presents the pedagogical insights and concerns that emerged from their reflections on ChatGPT's integration into EFL writing instruction.

3.1 EFL Pre-Service Teachers' Experiences of Using ChatGPT in Academic Writing

The first research question examined how EFL pre-service teachers experienced using ChatGPT in academic writing. The thematic analysis showed that participants used ChatGPT mainly as a writing support tool rather than as a substitute for their own writing. Their experiences were grouped into four themes: idea generation, language support, text organisation, and writing efficiency.

Table 1. Themes of Pre-Service Teachers' Experiences in Using ChatGPT for Academic Writing

Theme	Description	Representative Evidence
Idea generation	ChatGPT helped participants generate initial ideas and overcome difficulty in starting academic writing tasks.	P1: "The benefit of ChatGPT is that it helps me more in brainstorming sessions by providing ideas that suit my needs."
Language support	ChatGPT supported vocabulary selection, grammar checking, and sentence-level improvement.	P4: "ChatGPT has significantly improved my writing, particularly in sentence structure, by providing feedback that is clear and easy to understand."
Text organization	ChatGPT helped participants organise their ideas, improve coherence, and make their writing more concise.	P8: "ChatGPT is so helpful in organising my writing to be more concise."
Writing efficiency and accessibility	ChatGPT was perceived as practical, easy to use, and accessible for supporting different stages of writing.	P6: "It is quite easy to use with complete features."

As shown in Table 1, the participants experienced ChatGPT as a practical writing assistant that supported different stages of academic writing. The most frequently mentioned experience was using ChatGPT for idea generation. Several participants explained that they used ChatGPT when they had difficulty getting started on a writing task or developing ideas for a given topic. P1 stated, "The benefit of ChatGPT is that it helps me more in brainstorming sessions by providing ideas that suit my needs." This indicates that ChatGPT helped participants overcome the initial difficulty of academic writing, particularly during the pre-writing stage. Similarly, P2 explained, "ChatGPT made me feel helped, especially when I was brainstorming ideas. For example, if the lecturer gave a topic about something, I would use ChatGPT as my brainstorming tool, then I would develop it by myself." This statement suggests that participants did not simply copy AI-generated responses. Instead, they used ChatGPT as a starting point, then developed their own ideas independently.

In addition to generating ideas, participants used ChatGPT to support language accuracy. As EFL learners, they often encountered difficulties in choosing appropriate words, constructing grammatically accurate sentences, and improving sentence clarity. P3 explained, "I used ChatGPT when I searched for words that I might have had difficulty writing." This shows that ChatGPT was used as a vocabulary support tool when participants struggled to express ideas in English. P4 further emphasised the usefulness of ChatGPT for sentence-level revision, stating, "ChatGPT has significantly improved my writing, particularly in sentence structure, by providing feedback that is clear and easy to understand." The immediacy of ChatGPT's feedback allowed participants to revise their writing more efficiently and increased their confidence in producing

academic texts. However, the participants also recognised that ChatGPT's responses were not always accurate. P7 noted that ChatGPT was not fully useful when the keywords or suggestions provided were inaccurate. This suggests that although ChatGPT supported language improvement, participants still needed to evaluate its output critically.

Another important experience was using ChatGPT to organise academic texts. Participants used ChatGPT not only to correct language but also to improve the structure and flow of their writing. P8 stated, "ChatGPT is so helpful in organising my writing to be more concise." He also added, "I also use ChatGPT to organise the flow of my writing." These statements indicate that ChatGPT helped participants assess whether their ideas were logically organised and whether their writing was coherent. This finding shows that participants viewed writing as a process involving planning, drafting, organising, and revising, rather than merely producing a final text. Participants also valued ChatGPT for its practicality and accessibility. P6 stated, "It is quite easy to use with complete features," and further explained, "In my opinion, it is easy to use ChatGPT to support my writing process." Even though the participants used the free version, they considered its features sufficient for supporting academic writing activities. Participants' experiences show that ChatGPT was useful for idea generation, language improvement, text organisation, and writing efficiency. However, their narratives also indicate that ChatGPT was most valuable when used selectively and critically, rather than as a replacement for students' own writing effort.

3.2 Pedagogical Insights and Concerns Emerging from Pre-Service Teachers' Reflections

The second research question explored the pedagogical insights and concerns that emerged from pre-service teachers' reflections on their use of ChatGPT in academic writing. The findings show that participants not only reflected on ChatGPT as students who used it for their own writing, but also as future teachers who considered how it might be integrated into EFL writing instruction. Their reflections were grouped into five themes: ChatGPT as a writing scaffold, ChatGPT-generated texts for critical evaluation, AI feedback for formative revision, concerns about accuracy and academic integrity, and balancing AI-assisted and AI-free writing tasks.

Table 2. Themes of Pedagogical Insights and Concerns Regarding ChatGPT Integration

Theme	Description	Representative Evidence
ChatGPT as a writing scaffold	ChatGPT can support students during the early stages of writing, especially brainstorming and outlining, but students should develop ideas independently.	P5: "If I were a teacher, I would ask my students to use ChatGPT to brainstorm ideas before writing. Then, I would ask them to develop those ideas independently."
AI-generated texts for critical evaluation	ChatGPT-generated writing can be used as classroom material to train students to evaluate text quality.	P4: "We could show students two short pieces of writing from ChatGPT, for example, the introduction section, and then discuss which is better and why."
AI feedback for formative revision	ChatGPT can support grammar checking and revision, but its feedback should be evaluated and compared with that from other sources.	P7: "I think ChatGPT can be a helpful tool for my students to check their grammar before submitting assignments so that they can learn from their mistakes and the feedback given by ChatGPT."
Accuracy, fabricated information, and academic integrity concerns	Participants were concerned about inaccurate explanations, fabricated references, plagiarism, and uncritical use of AI-generated output.	P3: "I asked about passive voice, and an example was given, but the explanation wasn't accurate. Then, I cross-checked with my grammar book, and the explanation was different."
Balancing AI-assisted and AI-free writing tasks	Participants suggested combining AI-supported tasks with manual writing tasks to prevent dependency and maintain learner agency.	P5: "Teachers should not always allow students to use ChatGPT in every writing task."

As summarised in Table 2, participants' reflections revealed an emerging pedagogical awareness of how to integrate ChatGPT into EFL writing instruction. Several participants viewed ChatGPT as a scaffold that could help students at the early stages of writing. P5 reflected, "If I were a teacher, I would ask my students to use ChatGPT to brainstorm ideas before writing. Then, I would ask them to develop those ideas independently." This statement shows that participants did not imagine ChatGPT as a tool that should complete students' writing for them. Instead, they saw it as temporary support that could help students begin writing while still requiring them to develop ideas independently. This suggests that participants were beginning to think pedagogically about the need to guide AI use rather than to rely on it unrestrictedly. Participants also proposed using ChatGPT-generated texts as learning materials for classroom evaluation. P4 suggested, "We could show students two short pieces of writing from ChatGPT, for example, the introduction section, and then discuss which is better and why." This reflection indicates that ChatGPT could be used not only as a writing assistant but also as a pedagogical resource for developing students' critical judgment. By comparing AI-generated texts, students could be encouraged to evaluate organisation, clarity, relevance, and quality. This approach shifts ChatGPT's use from passive text generation to active analysis.

Another pedagogical insight concerned the use of ChatGPT as a source of formative feedback. Participants believed that students could use ChatGPT to check grammar, revise sentences, and improve their writing before submitting assignments. P7 stated, "I think ChatGPT can be a helpful tool for my students to check their grammar before submitting assignments so that they can learn from their mistakes and the feedback given by ChatGPT." However, participants also emphasised that students should not automatically accept AI feedback. P6 argued that students should compare ChatGPT feedback with other feedback sources because this could "train students to evaluate feedback and decide which suggestions could improve their writing." These reflections suggest that ChatGPT can support formative revision when students are guided to critically evaluate its suggestions.

Despite these perceived benefits, participants expressed strong concerns about the accuracy of ChatGPT-generated information. P3 shared, "I asked about passive voice, and an example was given, but the explanation wasn't accurate. Then, I cross-checked with my grammar book, and the explanation was different." This experience made participants aware that ChatGPT can produce inaccurate explanations, even when its responses appear convincing. Participants also expressed concern about fabricated references and unsupported claims, which they considered risky in academic writing. These concerns show that participants recognised the importance of verification and source evaluation in AI-assisted writing. Importantly, the participants did not interpret ChatGPT's limitations only as problems. Some of them reframed these limitations as opportunities to teach fact-checking. P8 suggested, "We can give students a paragraph from ChatGPT and ask them to check which information is true and false. This will train them not to trust the information provided by ChatGPT blindly." This statement demonstrates that participants were beginning to transform AI-related risks into pedagogical strategies. Rather than simply warning students against ChatGPT, they proposed activities that could help students verify information, question AI output, and develop critical AI literacy.

A final concern was the possibility of over-reliance on ChatGPT. Participants worried that students might become dependent on AI-generated responses and lose opportunities to practice independent thinking and writing. P2 stated, "Students will be lazy to think if they always depend on ChatGPT in their writing process." Similarly, P7 explained, "When students do not cross-check what ChatGPT writes, they will miss an opportunity to construct sentences from their ideas. In this context, students will not learn anything." These statements suggest that participants were concerned not only about academic integrity but also about the cognitive and developmental consequences of excessive AI use. To address this risk, participants suggested balancing AI-assisted and AI-free writing tasks. P5 explained, "In my opinion, teachers should not always allow students to use ChatGPT in every writing task. Maybe in some assignments, students can use ChatGPT to brainstorm or check grammar, but in others, they should write without it. This is important so students

can still practice thinking, making ideas, and arranging their sentences by themselves.” P2 shared a similar view, stating, “If students use ChatGPT all the time, I think they may become too dependent on it. That is why teachers need to give different types of tasks. Sometimes students can use ChatGPT as a helper, but sometimes they should write manually so they can train their own ability.” These reflections indicate that participants favoured a balanced approach rather than a total ban or unrestricted use of ChatGPT. Participants also emphasised the importance of transparency in AI-assisted writing. P7 suggested that students should be asked to explain how they used ChatGPT: “I think it is better if students are asked to explain how they use ChatGPT in their writing. For example, which part comes from ChatGPT, which suggestion they accept, and which one they reject. In that way, they do not only copy the answer, but they also think about their writing decisions.” Here, participants’ reflections indicate they were developing pedagogical reasoning about responsible AI integration. They viewed ChatGPT as potentially useful for writing instruction, but only when its use is guided by teacher supervision, critical evaluation, source verification, transparency, and opportunities for independent writing practice.

4. Discussion

The findings reveal that EFL pre-service teachers found ChatGPT to be a supportive tool for academic writing, particularly for generating ideas, improving language accuracy, organising texts, and increasing writing efficiency. However, the significance of these findings lies not merely in ChatGPT’s technical functions as a writing assistant, but also in how participants interpreted its use from their dual positions as language learners and future English teachers. This dual positioning is important because their experiences with ChatGPT were not limited to personal writing convenience; they also became a basis for reflecting on how AI-assisted writing should be pedagogically guided. Previous studies have shown that ChatGPT can support students’ writing through brainstorming, drafting, language improvement, and feedback generation (Yan, 2023; Song & Song, 2023; Marzuki et al., 2023; Werdiningsih et al., 2024). The present study extends this line of research by showing how pre-service teachers transform their personal experiences with ChatGPT into early pedagogical reasoning about the responsible integration of AI in EFL writing instruction.

The participants’ use of ChatGPT for idea generation reflects the growing role of generative AI in supporting the pre-writing stage. For EFL learners, beginning an academic text can be difficult because they must identify relevant ideas, organise initial thoughts, and transform general knowledge into academic arguments. ChatGPT appeared to reduce this initial difficulty by offering possible directions for writing. This finding is consistent with Yan (2023), who found that ChatGPT influenced L2 learners’ writing practices by assisting idea development and text construction. Song and Song (2023) similarly reported that ChatGPT supported EFL learners’ academic writing motivation and writing performance, while Werdiningsih et al. (2024) showed that Indonesian EFL students used ChatGPT to generate ideas and improve writing quality. What is particularly important in the present study is that participants did not describe ChatGPT as a tool for replacing their own thinking. They used AI-generated ideas as preliminary input and then developed them independently. This distinction strengthens the argument that ChatGPT can support learner agency when used as a writing stimulus rather than as a substitute for cognitive engagement.

ChatGPT was also found to be useful for language support, especially for vocabulary selection, grammar checking, and sentence-level revision. This is unsurprising in EFL academic writing contexts, where linguistic limitations often affect students’ ability to express ideas clearly and appropriately. Marzuki et al. (2023) found that AI writing tools can affect the quality of EFL students’ writing, particularly in content and organisation. Mizumoto and Eguchi (2023) further show that AI language models have potential for writing-related assessment and feedback, while Mahapatra (2024) demonstrates that ChatGPT can contribute to ESL students’ academic writing development when integrated through appropriate instructional support. The present study supports these findings by showing that pre-service teachers valued ChatGPT’s immediate feedback, which helped them revise vocabulary, grammar, and sentence structure during the writing process. Yet their awareness of inaccurate or inappropriate suggestions also suggests that AI-generated feedback

should be treated as provisional. In writing instruction, this means that ChatGPT feedback needs to be positioned as one source of input among others, not as an unquestionable authority.

The participants' use of ChatGPT to organise academic texts also broadens understanding of AI-assisted writing. ChatGPT was not used solely to correct surface-level language errors; it was also used to review the flow, conciseness, and coherence of the writing. This is important because academic writing quality depends not only on grammar and vocabulary but also on rhetorical organisation, coherence, and argument development. Hyland (2003) argues that second language writing involves social, rhetorical, and communicative dimensions, while McNamara et al. (2010) show that linguistic and discourse features are closely related to writing quality. Within this perspective, ChatGPT may support EFL learners by helping them reflect on how their ideas are sequenced and connected. Nevertheless, such support becomes pedagogically meaningful only when students remain active decision-makers in revising and reorganising their texts. If students simply accept AI-generated organisation without evaluation, the writing process may become a mechanical act of following suggestions rather than a reflective act of meaning-making.

A central contribution of this study lies in the participants' pedagogical reflections. As future teachers, they did not evaluate ChatGPT solely on usefulness. They also considered how it might be used in writing classrooms, what risks it might create, and what kinds of guidance students would need. This finding resonates with Kohnke et al. (2023), who argue that language educators need to understand both the pedagogical affordances and limitations of ChatGPT. Hockly (2023) similarly emphasises that AI in English language teaching requires critical awareness, as ethical, pedagogical, and practical risks accompany its benefits. Moorhouse and Kohnke (2024) further argue that generative AI has implications for initial language teacher education, particularly because future teachers need to develop informed and responsible approaches to AI use. The present study contributes to this discussion by showing that pre-service teachers are not merely passive users of ChatGPT; they are beginning to formulate pedagogical positions on how AI should be integrated into writing instruction. Furthermore, participants' views of ChatGPT as a scaffold are pedagogically significant. They suggested that ChatGPT could help students generate ideas, create outlines, and begin writing, but that students should develop the final text independently. This reflects a guided approach to AI integration. Rather than treating AI assistance as inherently harmful, the participants recognised its potential to reduce writing difficulties and support students during challenging stages of the writing process. At the same time, they emphasised that responsibility for the final text should remain with students. This view is compatible with process-based writing pedagogy, which positions writing as a recursive process involving planning, drafting, feedback, revision, and reflection (Hyland, 2003; Hyland & Hyland, 2019). ChatGPT can therefore be pedagogically useful when it supports specific stages of writing while still preserving students' ownership of ideas, arguments, and final decisions.

Another important insight is the use of ChatGPT-generated texts as materials for critical evaluation. Participants suggested that teachers could present AI-generated writing samples and ask students to compare, evaluate, and revise them. This shifts ChatGPT from a private writing assistant to a classroom resource for developing critical judgment. Such a strategy is closely related to the concept of evaluative judgement, which refers to learners' ability to make informed decisions about the quality of their own work and the work of others (Tai et al., 2018). Nicol et al. (2014) also argue that feedback becomes more powerful when students are actively involved in judging and using it rather than passively receiving corrections. By evaluating ChatGPT-generated texts, students can learn to question the quality of AI output, identify weaknesses in organisation or reasoning, and justify their revision decisions. This practice is particularly relevant in academic writing because fluent language does not necessarily guarantee accurate content, logical argumentation, or credible evidence.

The participants' concerns about factual inaccuracies and fabricated references reflect a crucial limitation of generative AI in academic writing. ChatGPT can produce responses that sound convincing but contain inaccurate explanations, unsupported claims, or false references. Walters and Wilder (2023) found that ChatGPT can generate fabricated and erroneous bibliographic citations, while Lingard (2023) cautions that

its fluent prose may conceal limitations in reasoning and evidence. [Dergaa et al. \(2023\)](#) also warn that AI-generated academic writing raises concerns related to authorship, transparency, and scholarly integrity. The participants' concern about inaccurate explanations and fabricated references is therefore not a minor technical issue; it directly relates to the credibility of academic writing. For EFL learners, the risk may be even greater because linguistic fluency in AI-generated texts can make inaccurate information appear academically acceptable. In addition, what makes the participants' reflections noteworthy is that they did not treat ChatGPT's limitations merely as grounds for rejection. They reframed these limitations as opportunities to teach fact-checking, source verification, and critical AI literacy. This pedagogical move is important because responsible AI use in writing does not depend solely on whether students are allowed to use ChatGPT, but also on whether they are taught to evaluate its output. [Kohnke et al. \(2023\)](#) emphasise the importance of developing critical awareness when using ChatGPT in language learning, while [Hockly \(2023\)](#) argues that AI literacy should include the ability to recognise both affordances and risks. [Nguyen et al. \(2024\)](#) also show that AI-assisted writing involves complex human-AI collaboration patterns rather than simple text generation. In the present study, participants' suggestion to ask students to verify AI-generated paragraphs demonstrates an emerging understanding that AI literacy should be practised through classroom activities rather than merely explained as an abstract principle.

The concern about over-reliance further highlights the need for pedagogical control in AI-assisted writing. Participants worried that students might rely too heavily on ChatGPT, losing opportunities to practice independent thinking, creativity, and writing skills. This concern is supported by [Yan \(2023\)](#), who found that ChatGPT may simplify L2 writing practices when learners rely heavily on AI-generated text. [Doshi and Hauser \(2024\)](#) also show that generative AI can improve individual creative output while reducing the diversity of ideas across writers. These studies suggest a tension in AI-assisted writing: ChatGPT can help learners produce more fluent, organised, and polished texts, but excessive reliance may weaken originality, diversity of ideas, and independent cognitive engagement. In teacher education, this tension is particularly important because future teachers must learn to design writing tasks that enable productive AI support without reducing students' responsibility as writers.

The participants' proposal to balance AI-assisted and AI-free writing tasks offers a practical response to this tension. Rather than supporting unrestricted AI use or complete prohibition, they suggested differentiated writing tasks in which ChatGPT may be used for brainstorming, grammar checking, or feedback comparison. In contrast, other tasks require students to write without AI support. This approach aligns with human-centred perspectives on AI integration, which emphasise transparency, learner agency, teacher oversight, and responsible collaboration between humans and AI ([Li et al., 2025](#); [Nguyen et al., 2024](#)). It also addresses concerns about academic integrity because students can be asked to disclose how they used ChatGPT, explain which suggestions they accepted or rejected, and justify their writing decisions. Such reflective disclosure can move AI use away from hidden assistance and toward accountable learning practice.

The study contributes to research on AI-assisted writing by foregrounding pre-service teachers as a distinctive group of participants. Previous studies have largely focused on students' perceptions or experiences of using ChatGPT for writing ([Yan, 2023](#); [Teng, 2024](#); [Nugroho et al., 2024](#); [Werdiningsih et al., 2024](#)). While these studies provide valuable insights into learner engagement with AI, they do not fully capture how future teachers interpret AI-assisted writing pedagogically. The present study shows that pre-service teachers' experiences with ChatGPT can become a site of professional learning. Through using ChatGPT themselves, they began to identify potential classroom uses, anticipate risks, and propose instructional strategies. This suggests that teacher education programs should not treat AI literacy as a peripheral or purely technical skill. Instead, AI literacy should be integrated into teacher preparation as a pedagogical competence involving ethical judgment, task design, feedback literacy, source evaluation, and learner agency. For EFL writing instruction, the findings suggest several pedagogical directions. ChatGPT can be integrated through guided brainstorming, AI-assisted outlining, grammar feedback comparison, AI-generated text evaluation, verification tasks, and reflective AI-use statements. These activities allow students

to benefit from AI support while maintaining responsibility for their own writing decisions. Teacher educators also need to prepare pre-service teachers to design writing tasks that distinguish between acceptable and unacceptable AI use, provide criteria for evaluating AI-generated output, and develop students' ability to verify information. Without such preparation, future teachers may either reject AI tools without pedagogical consideration or use them without sufficient guidance. A more productive response is to prepare teachers who can make context-sensitive decisions about when AI support enhances learning and when it may undermine students' development as independent academic writers.

The discussion of these findings points to a broader argument: ChatGPT should be treated not only as a writing tool but also as a pedagogical object. As a writing tool, it can support idea generation, language improvement, feedback, and organisation. As a pedagogical object, it can be used to teach students how to evaluate texts, verify claims, question automated feedback, and reflect on authorship and responsibility. This dual role is especially relevant for pre-service teachers, whose experiences as learners can shape their future instructional decisions. In EFL teacher education, meaningful AI integration therefore requires more than access to technology. It requires structured opportunities for pre-service teachers to examine AI-generated texts, reflect on ethical concerns, design AI-informed writing activities, and develop principled approaches to balancing AI support with independent writing development.

5. Conclusion

This study explored EFL pre-service teachers' experiences of using ChatGPT in academic writing and their pedagogical reflections on its possible integration into writing instruction. The findings show that ChatGPT was experienced as a useful writing support tool, particularly for generating ideas, improving grammar and vocabulary, organising texts, revising sentences, and increasing writing efficiency. However, participants' reflections also reveal that ChatGPT's value in academic writing depends on how it is used critically and pedagogically. As future English teachers, the participants recognised that ChatGPT may support students during the writing process. Still, they also expressed concerns about factual inaccuracies, fabricated references, academic integrity, over-reliance, and the possible weakening of learner agency, creativity, and independent thinking. Rather than viewing these concerns as reasons to reject ChatGPT, the participants reframed them as opportunities to develop critical AI literacy, source verification, evaluative judgment, and responsible writing practices. The study contributes to research on AI-assisted writing by foregrounding pre-service teachers' dual position as both EFL learners and future educators, showing how their personal experiences with ChatGPT can inform emerging pedagogical reasoning. Pedagogically, the findings suggest that ChatGPT should be integrated into EFL writing instruction through guided, selective, and transparent practices, such as AI-assisted brainstorming, feedback comparison, AI-generated text evaluation, fact-checking activities, reflective AI-use statements, and a balance between AI-assisted and AI-free writing tasks. Teacher education programs should therefore prepare pre-service teachers not only to use generative AI tools technically, but also to make ethical, critical, and context-sensitive decisions about their use in writing classrooms. Future research may examine the long-term effects of ChatGPT-assisted writing on students' autonomy, creativity, writing quality, and academic integrity, and compare how pre-service and in-service teachers develop pedagogical strategies for AI integration across different EFL contexts.

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7. Declaration of AI Use

The authors acknowledge that ChatGPT was used to support language refinement and manuscript editing during the preparation of this article. ChatGPT was not used for data collection, data analysis, interpretation of findings, or the generation of research results. All AI-assisted revisions were carefully reviewed, verified, and approved by the authors, who take full responsibility for the accuracy, originality, and integrity of the final manuscript.

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