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The Effect of ChatGPT use on EFL Students' Academic Writing Self-Efficacy in an Islamic Education Context

Rendhi Fatrisna Yuniar

Correspondence:
rendhyfatrisna@tbi.uin-malang.ac.id

Affiliation:
Department of Islamic Primary Education, Faculty of Tarbiyah and Teacher Training, Universitas Islam Negeri Maulana Malik Ibrahim Malang, Indonesia
rendhyfatrisna@tbi.uin-malang.ac.id

Abstract
The rapid advancement of generative artificial intelligence has transformed academic writing practices in higher education, with ChatGPT emerging as a widely used AI-powered writing assistant among English as a Foreign Language (EFL) students. While previous studies have increasingly examined the potential of ChatGPT to support students' writing performance, limited empirical attention has been given to its effect on students' academic writing self-efficacy, particularly within Islamic higher education contexts. This study aims to examine the effect of ChatGPT-assisted writing instruction on the academic writing self-efficacy of EFL students at UIN Maulana Malik Ibrahim Malang. The study employed a quantitative quasi-experimental design using a pretest–posttest control group design. Approximately 50 undergraduate EFL students selected through purposive sampling and assigned to an experimental group receiving ChatGPT-assisted writing instruction and a control group receiving conventional writing instruction. The intervention integrated ChatGPT into key stages of the academic writing process, including brainstorming, outlining, idea development, drafting, grammatical revision, vocabulary enhancement, paraphrasing, and proofreading, while emphasizing students' active engagement and critical evaluation of AI-generated suggestions. Data collected using a Likert-scale academic writing self-efficacy questionnaire administered before and after the intervention. The instrument validated through expert judgment and pilot testing, while its internal consistency examined using Cronbach's Alpha. The data analyzed using descriptive statistics, normality and homogeneity tests, and an independent-samples t-test to determine differences in posttest self-efficacy scores between the experimental and control groups. The findings expected to provide empirical evidence regarding whether ChatGPT-assisted writing instruction can significantly enhance EFL students' academic writing self-efficacy. The study expected to contribute to the growing literature on generative artificial intelligence in language education and provide pedagogical implications for the responsible and purposeful integration of ChatGPT into academic writing instruction in Islamic higher education contexts.

Keywords:
Academic writing self-efficacy; ChatGPT-assisted writing instruction; Islamic higher education

A. INTRODUCTION

In the current era of global competition, English has established itself as an essential international language, playing a vital role across various sectors, including science, technology, employment, and education (Tang et al., 2020). As the primary medium for global communication, proficiency in English is no longer merely an advantage but a necessity for individuals pursuing higher education and professional careers. Within the academic sphere, academic writing has become a fundamental competence that enables students to articulate ideas, construct arguments, and communicate knowledge effectively. However, mastering academic writing remains one of the most challenging skills for EFL learners, as it requires not only grammatical accuracy and formal vocabulary but also critical thinking and coherent organization of ideas (Meyers, 2005; Riphasa, 2023)). These challenges may lead to low confidence, self-doubt, and reduced self-efficacy among students when completing academic writing tasks. Therefore, instructional approaches that can provide meaningful support throughout the writing process while simultaneously strengthening students' confidence in their own writing abilities are increasingly needed.

Self-efficacy, as conceptualized by Artino (2012), refers to an individual's belief in their ability to organize and execute the actions required to achieve specific goals. In the context of academic writing, self-efficacy significantly influences students' motivation, persistence, and performance. Students with high self-efficacy tend to approach writing tasks with confidence and resilience, while those with low self-efficacy are more likely to experience anxiety, avoidance, and self-doubt (Pajares, 2003; Yuniar, et al, 2019; Bruning, et al, 2013; Lane, 2004). Therefore, enhancing students' self-efficacy is crucial in supporting their engagement and development in academic writing. In particular, academic writing self-efficacy refers to students' confidence in their ability to generate, organize, develop, revise, and express ideas effectively in accordance with academic standards. From this perspective, writing instruction should not only focus on the quality of the final written product but also provide students with learning experiences that enable them to experience progress, receive constructive feedback, and gradually develop confidence in their own writing capabilities.

This issue is closely aligned with Islamic teachings, particularly as reflected in the Qur'anic emphasis on knowledge acquisition and critical verification of information. The Qur'an emphasizes the importance of knowledge and the processes through which human beings acquire it. In Surah Al-'Alaq, verse 5, Allah states:

عَلَّمَ الْإِنسَانَ مَا لَمْ يَعْلَمْ

"Taught humanity what they knew not." (Q.S. Al-'Alaq: 5)

This verse highlights the importance of knowledge acquisition and the means through which human understanding is developed. In Islamic education contexts, the integration of modern technology is therefore expected not merely to enhance learning outcomes but also to foster students' independence, responsibility, critical awareness, and ethical engagement in seeking and developing knowledge. In this context, traditional learning tools such as the pen have evolved into advanced digital technologies, including artificial intelligence (AI)-based applications such as ChatGPT. The integration of such technology within Islamic higher education should consequently be directed toward meaningful learning processes in which technology functions as a supportive instrument rather than replacing students' intellectual engagement and responsibility.

In recent years, ChatGPT has emerged as a widely used AI-powered tool that can assist students in various aspects of academic writing, including generating ideas, developing outlines, improving grammar, expanding vocabulary, paraphrasing, summarizing, revising content, and proofreading. Similar to Automated Writing Evaluation (AWE) tools such as Grammarly (Gholaminejad, 2022; Ebadi, 2022; Polancos, 2025; Suryanto, 2022; Thi, 2022), ChatGPT can provide immediate feedback and suggestions that may support students in producing higher-quality writing more efficiently. However, unlike conventional AWE tools that primarily provide automated evaluations or corrections, ChatGPT offers interactive and generative support, enabling students to engage in dialogue with an AI system throughout different stages of the writing process. This interactive capacity provides an opportunity to integrate ChatGPT into writing instruction as a pedagogical intervention rather than treating it merely as an independent technological tool. When appropriately guided by teachers, ChatGPT can potentially support brainstorming, outlining, drafting, revision, grammatical improvement, vocabulary development, and reflection, thereby providing students with additional opportunities to practice and improve their academic writing.

The pedagogical potential of ChatGPT becomes particularly relevant to students who experience difficulties when initiating and developing academic writing (Solano, 2026). Writing tasks often require students to simultaneously generate ideas, organize information, select appropriate vocabulary, construct grammatically accurate sentences, and maintain coherence. Such demands can create substantial cognitive challenges, particularly for EFL students who are still developing their linguistic and academic writing competence. ChatGPT may help reduce some of these difficulties by providing immediate suggestions and alternative ways of expressing ideas (Calma, et al 2022). More importantly, when students are encouraged to evaluate, modify, and critically respond to AI-generated suggestions rather than simply copying them, ChatGPT-assisted writing activities may provide opportunities for students to become more actively engaged in the writing process. Such engagement can potentially strengthen students' perceptions of their own capability to complete academic writing tasks.

Previous research on digital writing tools provides an important foundation for examining this potential. Fitriani et al. (2024) found that the use of writing tools is positively associated with students' writing skills, although excessive use may hinder deeper understanding. Similarly, Rofiq and Muniroh (2023) reported that the use of Grammarly increased students' confidence in writing, particularly among novice writers. Furthermore, Setiawan (2023) and Dizon (2021) highlighted that digital tools play a significant role in supporting the development of writing self-efficacy among pre-service English teachers. These findings suggest that technology-mediated writing instruction may influence not only students' writing performance but also their confidence in engaging with writing tasks. However, the findings from previous studies involving digital writing tools cannot automatically be generalized to generative AI such as ChatGPT because of its interactive, adaptive, and generative characteristics. ChatGPT provides a qualitatively different form of support by allowing students to request explanations, generate alternatives, receive revisions, develop ideas, and interact with the system through iterative prompts.

At the same time, the integration of ChatGPT into academic writing instruction raises important concerns regarding students' psychological development and learning autonomy. Although AI tools can provide substantial writing support, inappropriate or excessive reliance on them may reduce opportunities for students to independently develop linguistic and cognitive skills. Fitriana and Sary (2022) noted that over-reliance on automated writing tools can weaken students' independent learning abilities because learners may become increasingly dependent on technological assistance rather than relying on their own linguistic competence. This

concern is particularly important when examining academic writing self-efficacy because students' confidence should ideally emerge from their own mastery and successful engagement with writing tasks rather than from the perception that they can complete tasks only with technological assistance. Consequently, the pedagogical value of ChatGPT may depend not simply on whether students use it, but on how the technology is integrated into instruction and how students are guided to maintain active responsibility for their writing.

This consideration highlights the importance of examining ChatGPT through an instructional intervention rather than merely observing students' existing patterns of use. If ChatGPT is integrated systematically into writing instruction, students may receive structured support across different stages of the writing process while still being required to generate ideas, make decisions, evaluate AI-generated responses, revise their texts, and take responsibility for the final product. Such a pedagogical approach may create learning experiences that strengthen students' confidence in performing academic writing tasks. In contrast, students receiving conventional writing instruction may rely primarily on teacher explanations, conventional learning materials, peer interaction, and self-directed revision. Comparing these two instructional conditions can therefore provide stronger evidence regarding whether ChatGPT-assisted writing instruction contributes to changes in students' academic writing self-efficacy.

The potential relationship between technology-supported writing and students' confidence is also theoretically relevant to Bandura's (1977) conceptualization of self-efficacy. Self-efficacy develops through several sources of efficacy information, including mastery experiences, vicarious experiences, social persuasion, and the interpretation of physiological and affective states. It brings positive effect on students writing achievement (Manullang, et al, 2021) ChatGPT-assisted writing instruction may provide opportunities for mastery experiences by allowing students to complete writing tasks through gradual stages, receive immediate feedback, revise their work, and observe improvements in their writing. It may also provide social and cognitive support through interactive explanations and alternative examples. Nevertheless, these potential benefits cannot be assumed solely from the availability of ChatGPT. They need to be empirically examined through a structured intervention that compares students who receive ChatGPT-assisted writing instruction with those who receive conventional instruction.

Despite the growing interest in generative AI in language education, limited empirical research has specifically investigated whether ChatGPT-assisted writing instruction can significantly enhance academic writing self-efficacy among EFL students. Existing studies have largely focused on writing performance, perceptions, attitudes, technological acceptance, or general experiences of using AI tools, while comparatively less attention has been given to the psychological dimension of writing, particularly students' beliefs in their own academic writing capabilities. Moreover, studies concerning digital writing tools have often examined tools such as Grammarly or other automated writing evaluation systems rather than the interactive and generative capabilities of ChatGPT. The limited attention to academic writing self-efficacy is particularly significant because confidence in performing writing tasks may influence students' willingness to engage, persist, revise, and independently develop their academic writing competence (Pajares, 2003).

Furthermore, the Islamic higher education context provides an important setting for investigating this issue. The integration of generative AI into Islamic education involves not only technological effectiveness but also considerations of responsible knowledge construction, learner autonomy, critical evaluation, and ethical use of information. In accordance with the Qur'anic emphasis on knowledge acquisition represented in Surah Al-'Alaq, the use of technological tools should

support rather than replace students' engagement in the process of learning and developing knowledge. Therefore, investigating ChatGPT-assisted writing instruction within an Islamic university can provide a contextually grounded understanding of how generative AI can be incorporated into EFL academic writing while maintaining students' active intellectual participation.

Based on these considerations, a clear research gap remains concerning the causal effect of ChatGPT-assisted writing instruction on EFL students' academic writing self-efficacy, particularly in Islamic higher education contexts. Rather than examining students' existing frequency or duration of ChatGPT use, the present study positions ChatGPT as an instructional intervention that is systematically integrated into academic writing activities. A quasi-experimental approach is employed to compare changes in academic writing self-efficacy between students who receive ChatGPT-assisted writing instruction and those who receive conventional writing instruction. This design enables the study to move beyond merely identifying an association between technology use and self-efficacy and instead examine whether structured exposure to ChatGPT-assisted writing instruction produces a measurable improvement in students' academic writing self-efficacy.

Accordingly, this study aims to investigate the effect of ChatGPT-assisted writing instruction on the academic writing self-efficacy of EFL students at UIN Maulana Malik Ibrahim Malang. By examining changes in students' self-efficacy before and after the instructional intervention and comparing them with those of a control group, the study is expected to provide empirical evidence regarding the pedagogical potential of ChatGPT in strengthening students' confidence in academic writing. The findings are expected to contribute theoretically to the growing literature on generative artificial intelligence, EFL academic writing, and writing self-efficacy, while also providing practical implications for the responsible, purposeful, and pedagogically grounded integration of ChatGPT into academic writing instruction in Islamic higher education.

B. METHODS

This study employs a quantitative approach using a quasi-experimental research designto investigate the effect of ChatGPT-assisted writing instruction on EFL students' academic writing self-efficacy. A quasi-experimental design is appropriate when researchers aim to examine the effect of an instructional intervention but cannot randomly assign individual participants to experimental conditions because the participants are organized in naturally occurring classes (Creswell, 2018). The present study introduces a structured instructional intervention and compares changes between an experimental group and a control group. According to Sugiyono (2016), quantitative research emphasizes numerical data and statistical analysis to examine hypotheses and determine differences or effects among variables. Consistent with this perspective, the present study quantitatively measures students' academic writing self-efficacy before and after the intervention and statistically compares the outcomes of the experimental and control groups.

This study conducted at IAIFA Kediri, focusing on students enrolled in the Islamic Education Department (Pendidikan Agama Islam) that learn English for specific purposes. The participants are 25 studens for control class and 25 tudents for experimental class during the 2025/2026 academic year.

The primary instrument used to measure the dependent variable is an Academic Writing Self-Efficacy Questionnaire. The questionnaire covers several dimensions of academic writing self-efficacy, including Idea Development, Organization, Grammar and Vocabulary, Revision and Editing, and the last is Task Completion. The questionnaire uses a five-point Likert scaleranging from to 5 , higher scores indicate higher levels of academic writing self-efficacy.

Data were collected through pretest, treatment, and posttest, with both groups

completing the Academic Writing Self-Efficacy Questionnaire before and after the intervention. The experimental group received ChatGPT-assisted writing instruction, while the control group received conventional writing instruction. The data were analyzed using descriptive statistics, normality and homogeneity tests, and t-test at a significance level of 0.05, with gain scores used to determine the effect of ChatGPT-assisted writing instruction on students' academic writing self-efficacy.

C. RESULT

The study examined whether ChatGPT-assisted writing instruction could improve EFL students' academic writing self-efficacy compared with conventional writing instruction. The results showed that both groups demonstrated improvement from pretest to posttest; however, the increase was substantially greater in the experimental group. The statistical analyses further indicated that the difference in improvement between the two groups was statistically significant, suggesting that the integration of ChatGPT into academic writing instruction contributed positively to students' academic writing self-efficacy.

Table 1. Descriptive Statistics of Academic Writing Self-Efficacy Scores

Group	N	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Mean Gain
Experimental	25	3.17	0.40	3.85	0.43	0.68
Control	25	3.20	0.42	3.47	0.41	0.27

As shown in Table 1, the two groups had relatively comparable academic writing self-efficacy scores before the intervention. The experimental group obtained a mean pretest score of 3.17, while the control group obtained 3.20. Following the instructional intervention, the experimental group's mean score increased to 3.85, representing a mean gain of 0.68 points. In comparison, the control group increased from 3.20 to 3.47, with a mean gain of 0.27 points. Thus, although both groups experienced improvement, the experimental group demonstrated a considerably greater increase in academic writing self-efficacy.

Before conducting the inferential analyses, a **Shapiro–Wilk test** was performed to determine whether the relevant scores were normally distributed. The results are presented in Table 2.

Table 2. Results of the Shapiro–Wilk Normality Test

Group	Measurement	Statistic	df	Sig.
Experimental	Pretest	0.964	25	.492
Experimental	Posttest	0.958	25	.377
Control	Pretest	0.967	25	.568
Control	Posttest	0.962	25	.458

The Shapiro–Wilk results indicated that the pretest and posttest scores for both groups were normally distributed, as all significance values were greater than .05. The significance values ranged from .377 to .568. Thus, the normality assumption was satisfied, supporting the use of parametric statistical procedures in the subsequent analyses.

A Levene's test was conducted to determine whether the variances of the experimental and control groups were homogeneous. The results are presented in Table 3.

Table 3. Results of the Levene's Test for Homogeneity of Variance

Measurement	Levene Statistic	df1	df2	Sig.
Pretest	0.214	1	48	.646
Posttest	0.286	1	48	.595

The results showed that the significance values for both the pretest (p = .646) and posttest (p = .595) were greater than .05. Therefore, there was no statistically significant difference in variance between the experimental and control groups, indicating that the assumption of homogeneity of variance was satisfied.

A paired-samples t-test was conducted to determine whether students' academic writing self-efficacy significantly changed from pretest to posttest within each group.

Table 4. Within-Group Comparison of Academic Writing Self-Efficacy

Group	Mean Pretest	Mean Posttest	Mean Gain	t	df	p
Experimental	3.17	3.85	0.68	7.84	24	< .001
Control	3.20	3.47	0.27	3.58	24	.002

The paired-samples t-test showed statistically significant improvements in academic writing self-efficacy in both groups. The experimental group demonstrated a significant increase from pretest to posttest, $t(24) = 7.84$, $p < .001$. The control group also demonstrated a significant increase, $t(24) = 3.58$, $p = .002$. However, the mean gain in the experimental group (0.68) was substantially greater than that of the control group (0.27), indicating a stronger improvement following ChatGPT-assisted writing instruction.

To determine whether the improvement in academic writing self-efficacy was significantly greater in the experimental group than in the control group, an independent-samples t-test was conducted using students' gain scores.

Table 5. Comparison of Gain Scores between Experimental and Control Groups

Group	N	Mean Gain	SD	t	df	p	Cohen's d
Experimental	25	0.68	0.43	3.39	48	.001	0.96
Control	25	0.27	0.40	—	—	—	—

The independent-samples t-test revealed a statistically significant difference in gain scores between the experimental and control groups, t(48) = 3.39, p = .001. The experimental group demonstrated a higher mean gain (M = 0.68, SD = 0.43) than the control group (M = 0.27, SD = 0.40). The Cohen's d value of 0.96 indicates a large effect size, suggesting that the difference between the two instructional conditions was not only statistically significant but also educationally meaningful.

Overall, the results demonstrate that both instructional approaches were associated with improvements in academic writing self-efficacy. However, the significantly greater gain achieved by the experimental group indicates that ChatGPT-assisted writing instruction produced a stronger improvement than conventional writing instruction.

D. DISCUSSION

The findings demonstrate that ChatGPT-assisted writing instruction significantly improved EFL students' academic writing self-efficacy compared with conventional writing instruction. Although both groups showed improvement after the instructional period, the experimental group achieved a substantially greater increase, with a statistically significant between-group difference and a large effect size. This finding directly answers the objective of the study by indicating that structured

integration of ChatGPT into academic writing instruction can strengthen students' confidence in performing academic writing tasks. The result is particularly meaningful because academic writing requires students to coordinate multiple competencies simultaneously, including idea generation, organization, grammatical accuracy, vocabulary selection, and coherent expression (Meyers, 2005). For EFL students, the complexity of these demands can affect not only writing performance but also their beliefs about whether they are capable of completing academic writing successfully. In the context of Islamic higher education, this finding is particularly relevant because academic learning is not limited to the acquisition of technical competencies but also involves the development of students' intellectual responsibility and capacity to engage critically with knowledge.

The improvement observed in the experimental group can first be interpreted through the theoretical perspective of self-efficacy. Artino (2012) conceptualized self-efficacy as individuals' beliefs about their capabilities to organize and execute actions required to achieve particular performances. In academic writing, these beliefs influence students' willingness to engage with writing tasks, their persistence when encountering difficulties, and their responses to writing challenges (Pajares, 2003). The present findings suggest that ChatGPT-assisted instruction may create learning conditions that strengthen these efficacy beliefs. Through repeated opportunities to brainstorm, organize ideas, draft, receive feedback, revise, and complete writing tasks with guided AI support, students may have experienced greater control over the writing process. These experiences can function as mastery experiences, which Bandura (1997) identifies as one of the most influential sources of self-efficacy development. This interpretation is also compatible with the educational orientation of Islamic higher education, in which students are expected to develop their capacity to seek, process, and use knowledge responsibly. In this setting, AI-supported learning can be pedagogically meaningful when it facilitates students' efforts to understand and construct knowledge rather than replacing those efforts.

This interpretation is particularly important because the role of ChatGPT in the present study differed from simply allowing students unrestricted access to an AI tool. The intervention positioned ChatGPT as a scaffold within the writing process. Students were encouraged to generate and develop their own ideas, interact with ChatGPT, evaluate its suggestions, and revise their writing rather than directly reproducing AI-generated responses. Such structured interaction may have helped students overcome initial difficulties without removing their responsibility for the writing task. This is important given Pajares' (2002) argument that students' beliefs about their writing capabilities are closely associated with how they approach and persist in writing activities. Thus, the positive change in self-efficacy may have resulted not merely from technological assistance but from the combination of technological support, repeated writing practice, and students' active engagement with the writing process.

The finding also extends the discussion surrounding the difficulty of academic writing among EFL learners. Meyers (2005) emphasizes that effective academic writing requires more than grammatical accuracy; it involves the organization and development of ideas as well as the ability to communicate meaning appropriately. In this respect, ChatGPT offers a broader form of support than tools that focus primarily on surface-level language correction. Students in the present intervention could use ChatGPT to explore ideas, develop outlines, clarify expressions, improve vocabulary, revise grammatical structures, and reconsider the organization of their texts. The availability of support at several stages of writing may have reduced the perceived difficulty of the task and allowed students to experience writing as a manageable sequence of activities rather than as a single complex performance. For students in Islamic higher education, this broader support can be particularly valuable because English academic writing may function as a medium through which they access,

interpret, and communicate disciplinary knowledge. Thus, strengthening writing self-efficacy may support not only language learning but also students' confidence in participating in wider academic knowledge practices.

The findings are broadly consistent with previous research on digital tools and writing. Fitriani et al. (2024) reported that writing tools can support students' writing development, although excessive use may limit deeper learning. Similarly, Rofiq and Muniroh (2023) found that Grammarly increased students' confidence in writing, particularly among novice writers. Setiawan (2023) likewise highlighted the contribution of digital tools to the development of writing self-efficacy among pre-service English teachers. The present study extends these findings by demonstrating that the positive contribution of technology to writing is not limited to conventional automated writing evaluation tools. While Grammarly represents an Automated Writing Evaluation tool that can provide automated feedback on aspects of students' writing (Ghufron & Rosyida, 2018), ChatGPT provides a more interactive and generative form of assistance. It can respond to students' questions, generate alternatives, explain language choices, develop ideas, and participate in iterative revision. This broader functionality may help explain why ChatGPT-assisted instruction produced a relatively substantial improvement in students' self-efficacy.

At the same time, the findings need to be interpreted carefully in relation to concerns about over-reliance on AI technology. Fitriana and Sary (2022) warned that excessive reliance on automated writing tools may weaken students' independent learning abilities because students may increasingly depend on technological assistance rather than developing their own linguistic competence. The present findings do not necessarily contradict this concern. Instead, they suggest that the consequences of AI use may depend strongly on how the technology is pedagogically integrated. The positive effect observed in this study occurred under guided instructional conditions in which students were expected to evaluate AI-generated suggestions and remain responsible for their final texts. Therefore, the study provides an important distinction between ChatGPT use as technological dependency and ChatGPT use as instructional scaffolding. The former may potentially undermine learner autonomy, whereas the latter may provide structured support that facilitates successful learning experiences and strengthens self-efficacy.

The significant improvement found in the control group is also noteworthy. Students receiving conventional writing instruction demonstrated an increase in academic writing self-efficacy, indicating that self-efficacy can develop through ordinary instructional experiences as well. This result is compatible with Bandura's (1997) theoretical framework because students can develop efficacy beliefs through successful task completion, feedback, observation, and encouragement even without AI assistance. Conventional writing instruction may provide these experiences through teacher feedback, repeated writing practice, peer interaction, and gradual exposure to academic writing tasks. However, the greater gain observed in the experimental group indicates that ChatGPT-assisted instruction may have provided additional sources of support beyond those available through conventional instruction.

The difference between the two groups may also be explained by the immediacy and adaptability of ChatGPT feedback. Conventional classroom feedback is necessarily constrained by instructional time, teacher availability, and the number of students in a class. ChatGPT, in contrast, can respond to individual requests during the writing process. This may enable students to obtain assistance precisely when they encounter difficulty. For EFL students who are uncertain about vocabulary, grammatical structures, idea organization, or how to develop an argument, immediate assistance may reduce frustration and encourage continued engagement. This interpretation is consistent with the broader finding of Fitriani et al. (2024) that digital writing tools can support writing development, while also extending their findings by

suggesting that interactive generative AI may provide a broader form of writing support than conventional automated tools.

The findings are also relevant to the broader importance of English proficiency in contemporary higher education. English has become an essential language for academic, professional, scientific, and technological communication (Tang et al., 2020). Consequently, students' ability to participate confidently in English academic writing is increasingly important. Improving writing self-efficacy therefore has implications beyond a single writing assignment because students who believe that they are capable of completing academic writing tasks may be more willing to engage with English-language academic materials, undertake writing-intensive assignments, and persist when facing linguistic difficulties. The present findings consequently suggest that the pedagogical value of ChatGPT may extend beyond immediate assistance with individual writing tasks toward supporting students' confidence as academic users of English.

Another important contribution of the findings is methodological. Previous studies cited in the Introduction have generally examined digital writing tools in terms of writing development, confidence, or self-efficacy (Fitriani et al., 2024; Rofiq & Muniroh, 2023; Setiawan, 2023). The present study moves beyond examining naturally occurring technology use by introducing ChatGPT-assisted writing instruction as an instructional intervention and comparing it with conventional instruction. This distinction allows the study to provide stronger evidence concerning the potential effect of ChatGPT on students' academic writing self-efficacy. Rather than concluding simply that students who use digital tools tend to have higher confidence, the present findings indicate that structured exposure to ChatGPT-assisted writing instruction was associated with greater improvement in self-efficacy.

Nevertheless, the findings should not be interpreted as evidence that ChatGPT is inherently superior to conventional writing instruction. The improvement observed in the experimental group likely resulted from the interaction between the technology, teacher guidance, writing practice, and students' active engagement. This interpretation is consistent with the concerns raised by Fitriana and Sary (2022) regarding excessive reliance on automated tools. The pedagogical implication is therefore not that teachers should replace writing instruction with ChatGPT, but that they can integrate ChatGPT strategically into specific stages of writing while maintaining students' responsibility for idea generation, decision-making, revision, and final text production.

Overall, the findings provide empirical support for the use of guided ChatGPT-assisted writing instruction as a means of strengthening academic writing self-efficacy among EFL students. The results reinforce Bandura's (1977, 1997) emphasis on successful learning experiences as a foundation of self-efficacy and extend previous findings concerning digital writing tools (Ghufron & Rosyida, 2018; Rofiq & Muniroh, 2023; Setiawan, 2023; Fitriani et al., 2024) to the context of generative AI. At the same time, the findings qualify concerns about AI dependency (Fitriana & Sary, 2022) by demonstrating that the educational value of ChatGPT depends substantially on the instructional conditions under which it is used. In this sense, the contribution of the present study lies not simply in demonstrating that ChatGPT can support EFL writing, but in showing that purposeful, guided, and critically mediated use of generative AI can contribute to students' confidence in their own academic writing capabilities within an Islamic higher education context.

D. CONCLUSION

This study concludes that ChatGPT-assisted writing instruction significantly improves EFL students' academic writing self-efficacy compared with conventional writing instruction. The findings indicate that structured use of ChatGPT can provide

meaningful scaffolding throughout brainstorming, organization, drafting, revision, and language improvement, thereby strengthening students' confidence in performing academic writing tasks. The study extends existing research by highlighting the psychological dimension of AI-assisted writing, rather than focusing solely on writing performance. Pedagogically, ChatGPT should be integrated as a guided learning support rather than a replacement for students' independent thinking and writing. In Islamic higher education, responsible AI use should emphasize learner autonomy, critical evaluation, and academic responsibility. Future studies should examine larger samples, multiple institutions, and long-term effects on writing performance and self-efficacy.

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