



JEELS

(Journal of English Education and Linguistics Studies)

P-ISSN: 2407-2575 E-ISSN: 2503-2194

<https://jurnalfaktarbiyah.iainkediri.ac.id/index.php/jeels>

ARTIFICIAL INTELLIGENCE IN WRITING: STUDENTS' WRITING COMPETENCIES AND VOICES

Saiful Marhaban¹; *Teguh Sulistyo²; Oktavia Widiastuti³

¹English Language Department, Universitas Syiah Kuala, Indonesia

^{2,3}English Language Department, Universitas PGRI Kanjuruhan
Malang, Indonesia

*saiful22@usk.ac.id; *sulistioteguh@unikama.ac.id;*

oktavia_widiastuti@unikama.ac.id

(*) Corresponding Author

Abstract: Integrating artificial intelligence (AI) in writing instructions may lead to an ongoing debate among scholars. However, the rapid development of technologies of AI technologies cannot be avoided in daily lives, including written language productions. This paper, then, tries to highlight two cases: the impacts of AI and process-based approach on students' writing competencies and what students perceive about the intervention. The study, which involved 27 Indonesian English language majors, used a mixed-methods approach that included both qualitative and quantitative data. The results showed that the integration of AI and a process-based

¹**Citation in APA style:**

Marhaban, S., Sulistyo, T., & Widiastuti, O. Artificial intelligence in writing: Students' writing competencies and voices. *JEELS*, 12(1), 403-425.

DOI: 10.30762/jeels.v12i1.3927

Submission: November 2024, Revision: April 2025, Publication: May 2025

approach significantly improved global, local, and overall issues. Surprisingly, local issues, which include grammar, vocabulary, and mechanics, had the greatest effect of all. In addition, students have a positive perception of AI in writing instruction. For them, AI promotes their autonomy and creativity through the use of ChatGPT and AI-generated feedback such as DeepL and Grammarly. The implications are also presented and discussed.

Keywords: *artificial intelligence, process-based approach, students' voices, writing competencies*

INTRODUCTION

Research on writing activities has been extensively conducted by various researchers, yielding diverse results (Chen & Liu, 2021; Karlsson, 2019; Perks et al., 2021; Sulistyono et al., 2021). However, the rapid development of technology in language learning has led to new horizons in writing activities. For example, artificial intelligence (AI) has the potential to revolutionize learning activities and academic research (Alshater, 2022; Tossell et al., 2024; Utami et al., 2023), and it has garnered significant global attention (Tlili et al., 2023), but it is the most debated topic among scholars (Imran & Almusharraf, 2023).

It is conceivable that AI technology could facilitate the democratisation of assistance in writing, offering real-time feedback on aspects such as grammar, word choice, and content creation. The application of AI represents an ongoing process that has the potential to provide tailored guidance, focusing on specific writing challenges. This could prove beneficial for children who experience difficulties with language and organisation (Imran & Almusharraf, 2023; Rinanda et al., 2024; Tossell et al., 2024). Burkhard (2023) claims that the advent of AI-powered writing tools presents both opportunities and challenges for the field of education.

As these tools become more sophisticated, they offer educators a powerful new resource for engaging students in writing activities. It is therefore incumbent upon educators to structure their pedagogical activities in a manner that ensures the reasonable utilisation of AI. Another study by Orak and Turan (2024) revealed that AI helped students to enrich the content of their texts. Utami et al. (2023) found that the utilisation of AI-based learning tools has proved instrumental in facilitating the process of academic writing. Nevertheless, some commentators have suggested that students may become less creative and less able to engage critically in the writing process if they become overly reliant on AI technologies.

While much has been said about the use of AI in education, there is still a dearth of research on students' perspectives on AI in writing. Previous research has focused mostly on the technical aspects of AI tools, without delving into the complex experiences of students utilizing them (Johnson et al., 2022). Furthermore, there is still more research to be done on the long-term effects of AI on students' writing abilities, such as their capacity for coherent argument construction and reflective thinking (Robinson et al., 2023). These discrepancies point to the need for more research on how students view AI's contribution to their writing growth and whether or not these tools actually help or hurt their ability to write. Furthermore, little is known about how students perceive these tools and how much AI can truly improve their writing, despite the fact that AI is becoming more and more common in writing instruction. Accordingly, by examining students' opinions on the use of AI in writing and how it affects their writing abilities, this paper aims to close these gaps.

This study, accordingly, seeks to determine how AI can best be used in the writing classroom to promote more productive writing habits by elevating students' voices. To answer the problems, the research questions were formulated as follows:

1. Does AI enhance students' writing competencies?
2. How do students perceive artificial intelligence in terms of writing process?

METHOD

Research Design

The study employed a mixed-methods approach to examine whether artificial intelligent enhance students' writing competencies and students' perceptions of the intervention. Accordingly, both quantitative and qualitative data were needed. The quantitative data was in the form of student scores to test students' writing competencies; the qualitative data was collected to find out students' perceptions of the intervention in a writing class.

Participants

A total of 27 Indonesian sophomores in the English department of a university participated in the study. The participants involved in this current study are students from Paragraph Writing class. They are selected through purposive sampling because these students are enrolled in Paragraph Writing class. Their participation in this study is expected to provide valuable insights into the research focus, particularly concerning their learning experiences and responses to the intervention of AI in academic writing activities.

Research Instruments

A written test, a scoring rubric, and a questionnaire were the tools used to collect the data needed for this research. In order to determine the students' writing competencies, the students wrote two paragraphs: one paragraph in the pre-test with topic "Practicing Speaking with Native Speakers" and another paragraph in the posttest with topic "Participating a Speaking Competition". The students wrote the paragraph in 100 minutes in each test.

A scoring rubric for the writing test spanning local issues (grammar, vocabulary, and mechanics) and global issues (content and organization) as applied by some scholars (Mackiewicz & Thompson, 2024; Ringler, 2018; Ruru & Sulisty, 2020). The analytical scoring rubric was arranged in ranges (content and organization weight 30 each, vocabulary and grammar weight 15 each, and mechanics equals to 10), so the maximum score is 100.

The questionnaire items were prepared by the researchers and reviewed by an expert in English Language Teaching (ELT) research. The items were divided into two: 10 items of 4-likert scale ranging from strongly agree, agree, disagree, and strongly disagree and 1 open-ended question about their suggestion how to make writing classes better and more motivating.

Learning Instruction

To ascertain how artificial intelligence (AI) was integrated into a writing class using a process-based approach and how students responded to AI in writing classes for a term comprising 16 sessions, each lasting 100 minutes, the instructor carefully prepared the teaching-learning activities. The integration of AI and a process-based approach (PBA) in a writing class is illustrated in Figure 1.

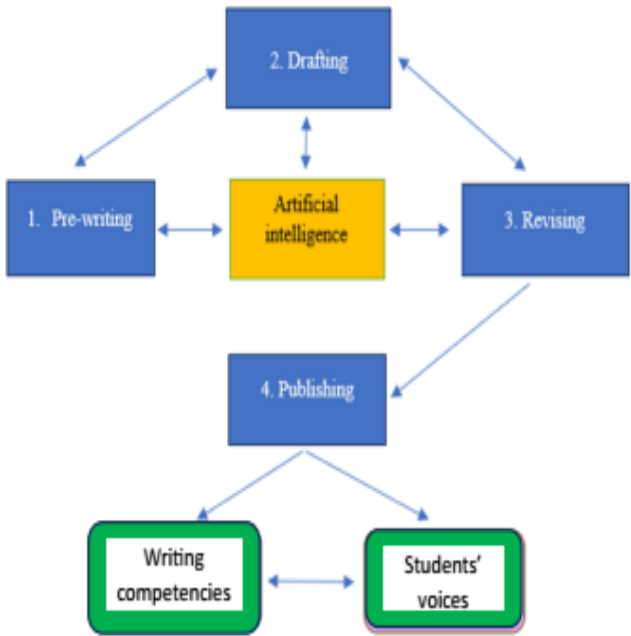


Figure 1. The teaching and learning process using AI and PBA

In pre writing step, the students sought to recall and enhance their background knowledge base in order to identify potential topics for their writing. The assistance of AI, such as ChatGPT, Gemini, and

Copilot, enabled the students to identify the appropriate vocabulary and concepts for developing their writing. Consequently, the activities fostered students' autonomy and capacity for independent learning. Then, in the drafting phase, the students proceeded to transform the concepts initially formulated during the pre-writing stage into a preliminary draft. Some of the students appeared to be engaged in the process of writing and consulting with AI to ensure the accuracy of word choices and identify potential supplementary information to enhance their text. In the revising phase, the students employed the use of artificial intelligence (AI) to facilitate the delivery of personalised feedback and guidance. The students employed a variety of digital tools, such as Grammarly, DeepL, and QuillBot, to assess and refine their grammatical accuracy. Furthermore, some students also employed the technique of paraphrasing sentences in order to select more appropriate utterances. Once the quality of the final text had been assured, it was submitted to the lecturer.

Data Collection and Analysis

To determine the students' writing competencies and voices on the use of AI in a writing class, the data collected from the instruments was subjected to both quantitative and qualitative analysis.

The writing tests were administered twice: pre-test and post-test, where the participants wrote a paragraph before and after the treatment. To prevent bias was used by two raters to administer the quantitative data obtained from the writing test scores. The dependability of the raters' scores was then examined using Pearson Product Moment Correlation. Lastly, to investigate the impact of AI on students' writing, the scores from pretest and posttest were examined using SPSS Version 20 Paired Sample t-test and Cohen's d effect size. Furthermore, the qualitative data was subjected to analysis using NVivo in order to identify patterns in the students' voices.

FINDINGS

The Effects of the Intervention

There are two kinds of quantitative data elaborated: inter-rater reliability and using correlation product moment and the effects of the intervention calculated statistically using paired sample t-test.

Tabel 1.
The results of inter-rater reliability

		Rater_1	Rater_2
Rater_1	Pearson Correlation	1	.629**
	Sig. (2-tailed)		.000
	N	27	27
Rater_2	Pearson Correlation	.629**	1
	Sig. (2-tailed)	.000	
	N	27	27

Table 1 highlights that the two raters resulted a moderate positive correlation at 0.629 indicating that the scores could be used to examine the impacts of the intervention. Since the correlation is statistically significant, the researchers can reasonably conclude that there is a consistent pattern in the way both raters evaluate, though they do not perfectly align. Thus, the consistency between the raters supports the credibility of the scores in evaluating the intervention’s impact.

Table 2.
The results of pretest and posttest of overall writing competencies

Aspect	Pretest Mean	Pretest SD	Post-test Mean	Post-test SD	t-stat	p-value	Effect Size
Global Issues	43	4.48073	46.148	3.40761	49.866	0	0.79
Local Issues	30.518	1.71801	33.407	0.93064	92.304	0	2.09
Overall	73.518	5.16922	79.5559	0.75618	73.902	0	1.38

Table 2 shows that the statistical calculation proved that the intervention had a significant effect on students' writing competence, as indicated by the p-value of 0.000 for global and local issues, including overall issues. In addition, the effect size varied among the topics, where global topics showed a moderate effect as indicated by 0.79, local topics confirmed a very high effect as it obtained 2.09, and overall topics got a high effect as indicated by 1.38. The statistical calculations suggest that the intervention is practically more effective for local issues than for global issues, although both and overall showed a statistically significant effect. The intervention led to significant improvements in scores on both global and local issues, with increasing consistency in post-test scores. This intervention proved effective in improving understanding or performance in global and local issues, with the largest effects observed in local issues. This implies that while the intervention was beneficial across all areas, it was most effective in enhancing students' abilities in local issue analysis.

Students’ Voices on the Intervention

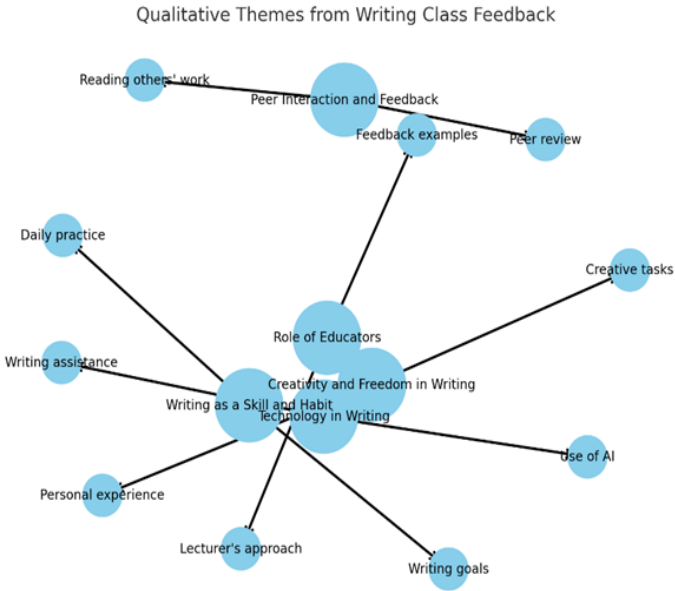


Figure 2. The Patterns of Students’ Voices

Figure 2 presents a thematic map derived from the qualitative feedback of a writing class, which likely illustrates the interrelationships between different themes based on the students' responses. Thematic mapping offers insight into the interrelationships between the various elements of the writing class. To illustrate, the theme of peer interaction and feedback plays a pivotal role in developing writing skills and fostering a writing habit. This underscores the social dimension of skill acquisition. Furthermore, the role of technology in writing is seen to impact both creativity and freedom in writing, as well as writing goals. This illustrates the students' sophisticated understanding of technology's function, encompassing both advantages (such as AI assistance) and disadvantages (such as limitations on creativity).

The thematic map demonstrates that the feedback is structured around several core areas, including skill-building, creative expression, educator roles, peer learning, and technology use. Each of these core themes has several sub-themes, indicating the diverse ways in which students perceive and interact with different aspects of the writing class. This map would assist in guiding further thematic analysis by identifying areas where students find significant connections, which could inform the emphasis or adaptation of specific areas in future writing classes for enhanced learning experiences (as illustrated in Table 3).

Table 3.
The students' thematic perceptions on the intervention

No	Themes	Students' Comments
1	Creativity and Freedom in Writing	1. Students' desire for more creative and open-ended tasks 2. Importance of writing from personal experiences
2	Peer Interaction and Feedback	1. Peer review and idea sharing to motivate and inspire writing 2. Reading others' work to stimulate creativity
3	Role of Educators	1. Lecturer's approach to teaching and feedback 2. Importance of examples and modelling

4	Technology in Writing	1. Use of AI for grammar checking and assistance 2. Role of technology in enhancing writing skills
5	Writing as a Skill and Habit	1. Importance of regular writing practice 2. Setting daily writing goals to improve

Table 3 indicates that respondents place a high value on creativity, flexibility, and the inclusion of peer feedback in writing classes. It is also essential that the lecturer provides motivating themes and relevant feedback. Furthermore, students have indicated that they find AI tools to be beneficial, but have also emphasised the importance of consistent practice and peer learning. The primary themes (represented by larger nodes) are linked to their respective subthemes (represented by smaller nodes), illustrating the interconnectivity of diverse elements pertaining to creativity, feedback, technology, and habits in the context of enhancing writing classes.

In addition to the thematic perceptions illustrated in Figure 2 and Table 3, students expressed the belief that AI facilitates the enhancement of their writing competencies (see Figures 3, 4, and 5).

Artificial Intelligence helps me to enrich my background knowledge before writing a text
27 responses

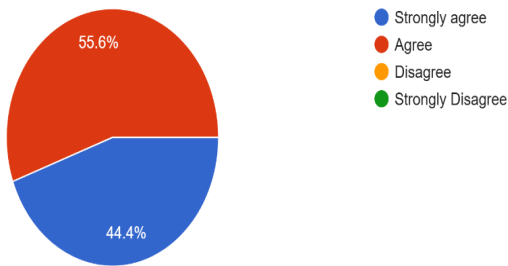


Figure 3. Students’ perceptions on AI in pre-writing

Figure 3 illustrates responses to the statement "Artificial Intelligence helps me to enrich my background knowledge before writing a text," with 27 respondents in total. The chart shows that 44.4% (N=12 selected “Strongly Agree” and 55.6% (N=15) chose “Agree”.

Meanwhile, none of the students chose “Disagree” nor “Strongly Disagree”. In conclusion, all respondents indicated a positive view of AI's role in enhancing background knowledge for writing, either by selecting the "Strongly Agree" or "Agree" option.

Artificial intelligence helps me to build better English when I revise my draft
27 responses

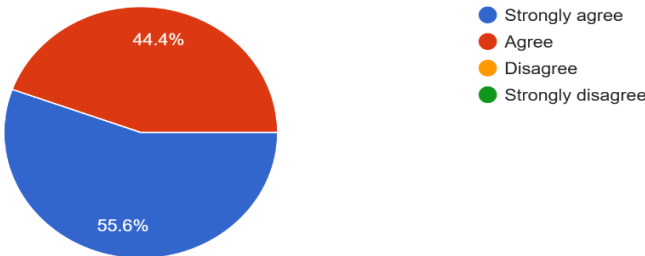


Figure 4. The students’ perceptions on AI in revising step

Figure 4 reflects the responses to the statement "Artificial intelligence helps me to build better English when I revise my draft," with 27 respondents in total. The distribution of responses is as follows: “Strongly Agree” was chosen by 55.6% (N=15) and “Agree” was selected by 44.4 (N=12) of the respondents. Thus, “Disagree” and “Strongly Disagree” were not chosen, indicating that respondents had a positive consensus on the usefulness of AI in improving English language quality during draft revisions.

Artificial intelligence helps me to write better
27 responses

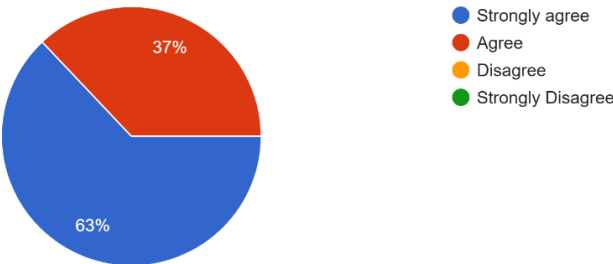


Figure 5. Students’ perceptions on the use of artificial intelligence in writing activities

Figure 5 presents the data on students' perceptions of the statement, "Artificial intelligence helps me to write better," based on responses from 27 participants. The responses were classified according to the level of agreement expressed. The respondents were invited to indicate their level of agreement with the statement by selecting one of the following options: "Strongly Agree", "Agree", "Disagree" or "Strongly Disagree". The majority of respondents (63%, N=17) selected the option "Strongly Agree," indicating a strong positive perception of AI's role in improving their writing. This indicates that a considerable proportion of students perceive AI tools as beneficial for developing their writing abilities, potentially due to features such as grammar correction, style enhancement, or content recommendations. The remaining 37% (N=10) of respondents selected the "Agree" option, indicating a moderate level of agreement with the statement. This suggests that, while these participants recognise the benefits of AI in writing, their confidence or satisfaction may be slightly lower than those who strongly agreed.

It is noteworthy that none of the respondents selected either the 'Disagree' or 'Strongly Disagree' options, which implies a consensus among participants that AI has a positive impact on their writing. The absence of negative responses indicates that either the AI tools are effectively integrated into the respondents' writing processes or that they have not encountered any significant disadvantages associated with their use. This distribution reflects an overwhelmingly positive perception of the role of AI in enhancing writing. The high level of agreement (100% combined) indicates that students perceive AI as a useful tool to assist them in the writing process.

DISCUSSION

The Effects of the Intervention

The findings demonstrated that the integration of a process-based approach and artificial intelligence significantly enhanced students' writing competencies. The writing elements comprising local, global, and overall issues indicated notable development, suggesting the beneficial impacts of the intervention as evidenced by the scores

obtained on the pretest and posttest. It implies that AI potentially helps students accomplish their tasks if it is applied accordingly. The results of other studies are consistent with those of the present study, indicating that AI has the potential to be an effective writing tool for improving students' writing abilities (de Vicente-Yagüe-Jara et al., 2023; Escalante et al., 2023; Geckin et al., 2023). This fact suggests that AI's integration in education, particularly ChatGPT and AI-generated feedback, opens new avenues for personalized learning, enhancing both student experiences and teacher support. It can deliver individualized feedback, answer student questions, and assist in essay writing, all of which contribute to more efficient and effective learning processes (Su & Yang, 2023). This interactivity may transform traditional educational models, enabling more dynamic language teaching that incorporates creativity and AI (de Vicente-Yagüe-Jara et al., 2023; Heberer et al., 2023; Ramirez & Esparrell, 2024).

To elaborate, when students encountered difficulties in completing their texts, they leveraged AI applications to obtain input prior to drafting and AI-generated feedback during the revising phase. They derived benefits prior to writing their draft by searching for information and addressing vocabulary issues related to their texts. Moreover, the majority of them employed ChatGPT for idea generation before writing. This benefit is in harmony with the studies conducted by Zhu and Wang (2023) and Ramirez and Esparrell (2024) who found that AI technology offers personalized, interactive assistance for students, enabling them to break down complex tasks through guided steps. It indicates that AI plays a beneficial role in helping students prepare their pre writing activities focusing on what to write and how develop their ideas into a text. In addition, the students independently checked their local issues by applying some applications to check their grammar, vocabulary items, and mechanics comprising spelling, punctuation, and capital letters. They applied AI-based programs, such as QuillBot, DeepL, Grammarly, etc. This finding is supported by Escalante et al. (2023) who claimed that AI-based assessment tools, like Grammarly and Pigai, are already used to provide feedback.

Despite the notable advancement in the students' writing competencies, it is essential to investigate the underlying reasons behind the superior performance of local issues compared to global and overall issues when AI was integrated into the process-based approach. One such reason is that it is now more straightforward for students to obtain AI-generated feedback in a timely and accurate manner, enabling them to refine their drafts and enhance their writing, including ensuring grammatical correctness and appropriate vocabulary usage. It is consistent with the study of Stojanov (2023) who revealed that AI provides consistent, unbiased feedback, and even motivational support, making it potentially beneficial for student engagement. However, he reminds that while AI feedback systems can aid students, over-reliance may hinder development of critical thinking if not carefully monitored. Furthermore, research indicates that AI can facilitate students' writing abilities by offering automated writing assessment, personalised learning, and intelligent tutoring systems (Huang et al., 2023; Klayklung et al., 2023; Tossell et al., 2024; Utami et al., 2023; Yoon & Chon, 2022). In essence, AI-generated feedback is advantageous in that it provides students with the necessary feedback to independently verify the accuracy of their written work.

The global issues comprising the content and organisation of the texts compelled the students to exercise discernment in developing their ideas, despite the provision of guidance from AI in the form of outlining and idea development. A study by Ruru and Sulisty (2020) found the similar fact that it is hard for students to develop their ideas into a good text. However, students' views of ChatGPT evolved from a perceived "cheating tool" to a collaborative resource requiring human oversight and calibrated trust (Tossell et al., 2024), indicating that students must work hard before deciding whether to use the AI suggestion because AI offers a supportive tool rather than a replacement for human thought (Heberer et al., 2023). Further, AI-based learning tools help students in the planning stage, to identify and develop topics, and in the drafting stage, to produce a draft paper (Robinson et al., 2023). It implies that AI is a beneficial tool for enhancing the quality of the students' written products, whether

through assistance with mechanical aspects such as grammar and syntax or more expansive stylistic recommendations. However, while there are numerous advantages, the use of ChatGPT in education also raises important ethical and social concerns. These concerns highlight the need for ongoing discussions about the role of AI in education, as reliance on AI in academic writing and assessments remains a contentious area (Alberth, 2023; Klayklung et al., 2023).

Students' Voices on the Intervention

The students' voices from the questionnaire show that students have a positive perception of AI and can be grouped thematically into five areas: 1) creativity and freedom in writing, 2) peer interaction and feedback, 3) role of educators, 4) technological AI in writing, and 5) writing as a skill and habit.

First of all, students find creativity and freedom important in writing activities. They prefer open-ended tasks with familiar topics based on their personal experiences rather than assigned tasks. It makes sense that familiarity with the topic not only encourages them to write but also to enjoy the task. Previous research has also shown that students write better, longer and higher quality texts in less time when they are familiar with the topic (Abdi Tabari et al., 2024; Bui & Luo, 2021; Özdemir & Karafil, 2022). It suggests that teachers must be aware of the importance of the topic selection to motivate students to write better.

Secondly, students perceive the value in maintaining contact with their peers through peer review and idea sharing as a means of motivating and inspiring writing. By reading their classmates' drafts, students can provide constructive feedback and gain insight into the characteristics of effective and inspiring texts. According to Ruru and Sulisty (2020), the incorporation of the peer review technique within the context of writing classes has been observed to have a calming effect on students, thereby enhancing their overall experience of the class. This has led to an increase in collaboration and competition among them (Sulisty et al., 2019). The students display a high level of enthusiasm, which has the effect of making the class more student-

centered. Furthermore, the act of discussing with one's peers has been shown to enhance critical thinking abilities and foster the development of social skills through the process of collaborative work (Kuyyogsuy, 2019).

Next, despite the provision of immediate feedback from AI, students require additional guidance from their lecturers to ascertain their expectations regarding the content and style of their written work through text modelling. In line with this fact, Sulistyono and Heriyawati (2017) claim that text modelling guides students the level of their expected texts. It may be the case that students appreciate receiving feedback from their lecturer because they perceive him to be well-placed to offer them constructive criticism. This perception is likely to be shaped by the quality of the student-teacher relationship (Sulistyono et al., 2024).

Fourth, students perceive that the use of AI for grammar checking and assistance helps them to improve the quality of their writing. This is also supported by the fact that the majority of respondents answered 'strongly agree' and 'agree' when asked to choose whether AI helps them to complete their writing task in the pre-writing (Figure 3) and revision (Figure 4) stages. In addition, they claim overall that AI is useful for improving their writing competencies (Figure 5). The fact is in line with the truth that AI technology offers assistance for students when they write a text (Ramirez & Esparrell, 2024; Stojanov, 2023), and AI creates more dynamic language teaching when incorporating creativity and AI (de Vicente-Yagüe-Jara et al., 2023).

Last but not least, students believe that writing should be a skill and a habit in their daily lives. They intend to practice writing regularly in order to improve their writing competencies (Gaffar et al., 2024). This is because they have self-efficacy in writing due to their previous skills and the help of the AI, which makes it easier for them to write. Indeed, AI-powered writing provides students with potential assistance in writing activities (Burkhard, 2023; Johnson et al., 2022; Utami et al., 2023). Accordingly, the teacher or lecturer needs to be

aware of the need to motivate the students to continue to write as an activity in their daily lives.

CONCLUSION

The intervention was found to be effective in improving students' writing competencies, with a particularly strong impact on local issues comprising grammar, vocabulary, and mechanics. The effectiveness of the intervention in improving both global and local issues of writing competencies suggests that such structured approaches can be incorporated into mainstream writing instruction. However, the stronger effect on local issues highlights a possible teaching strategy: start with local issues to build confidence before moving on to global ones (content and organization).

In addition, students have positive perceptions of the power of AI in their writing activities of prewriting, drafting, and revising. This positive perception was attributed to an appreciation of AI's capacity to provide immediate feedback in the form of AI-generated feedback such as Grammarly and DeepL and content (particularly ChatGPT). It implies that teachers or lecturers should guide their students to use artificial intelligence wisely, although many people or scholars have debated the role of AI in education, particularly on ethical issues and social concerns. Teachers or lecturers also need to be aware of possible changes to assessment areas.

However, there are potential weaknesses in the present study, such as the number of respondents involved, and given that the significant effect was more on local issues, future studies could explore the specific elements of the intervention that contributed to this outcome. Further research could also investigate whether incorporating more scaffolding or background information on global issues would reduce the effectiveness gap. It may also be beneficial to investigate the long-term retention of these skills. Future research could assess whether the skills developed through the intervention are maintained over time, particularly in different writing contexts and topic familiarities. Finally, research into students' subjective perspectives of the intervention could provide insights into

motivational factors and perceptions, thus providing a more comprehensive understanding of the impact of the intervention.

DECLARATION OF AI AND AI-ASSISTED TECHNOLOGIES

While preparing this work, we maximized NVivo application to analyze the qualitative data and made Figure 2 The Patterns of Students' Voices. The authors have reviewed and edited the content as needed and take full responsibility for the content of the publication after the use of this tool.

REFERENCES

- Abdi Tabari, M., Bui, G., & Wang, Y. (2024). The effects of topic familiarity on emotionality and linguistic complexity in EAP writing. *Language Teaching Research*, 28(4), 1616-1634. <https://doi.org/10.1177/13621688211033565>
- Alberth. (2023). The use of Chatgpt in academic writing: A blessing or a curse in disguise? *Teflin Journal*, 34(2), 337-352. <https://doi.org/10.15639/teflinjournal.v34i2/337-352>
- Alshater, M. (2022). Exploring the role of artificial intelligence in enhancing academic performance: A case study of ChatGPT. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4312358>
- Bui, G., & Luo, X. (2021). Topic familiarity and story continuation in young english as a foreign language learners' writing tasks. *Studies in Second Language Learning and Teaching*, 11(3), 377-400. <https://doi.org/10.14746/sslt.2021.11.3.4>
- Burkhard, M. (2023). How to deal with AI-powered writing tools in academic writing: A stakeholder analysis. *20th International Conference on Cognition and Exploratory Learning in Digital Age, CELDA 2023, Celda*, 187-198.
- Chen, W., & Liu, G. Q. (2021). Effectiveness of corrective feedback: Teachers' perspectives. *Iranian Journal of Language Teaching Research*, 9(1), 23-42. <https://doi.org/10.30466/ijltr.2021.120974>

- de Vicente-Yagüe-Jara, M. I., López-Martínez, O., Navarro-Navarro, V., & Cuéllar-Santiago, F. (2023). Writing, creativity, and artificial intelligence. ChatGPT in the university context. *Comunicar*, 31(77), 47-57. <https://doi.org/10.3916/C77-2023-04>
- Escalante, J., Pack, A., & Barrett, A. (2023). AI-generated feedback on writing: insights into efficacy and ENL student preference. *International Journal of Educational Technology in Higher Education*, 20(1), 20-57. <https://doi.org/10.1186/s41239-023-00425-2>
- Gaffar, M. A. ., Fadilah, D. F., & Nopita, D. . (2024). The influence of peer corrective feedback (PCF) on students' writing skills in hortatory exposition text. *JEELS (Journal of English Education and Linguistics Studies)*, 11(2), 557-578. <https://doi.org/10.30762/jeels.v11i2.3364>.
- Geckin, V., Kiziltas, E., & Çinar, Ç. (2023). Assessing second-language academic writing: AI vs. Human raters. *Journal of Educational Technology and Online Learning*, 6(4), 1096-1108. <https://doi.org/10.31681/jetol.1336599>
- Heberer, D., Pisano, A., Markson, C., & ChatGPT. (2023). As cited by the artificial intelligence of ChatGPT: Best practices on technology integration in higher education. *Journal for Leadership and Instruction*, 8-12. <https://files.eric.ed.gov/fulltext/EJ1393040.pdf>
- Huang, X., Zou, D., Cheng, G., Chen, X., & Xie, H. (2023). Trends, research issues and applications of artificial intelligence in language education. *Educational Technology and Society*, 26(1), 112-131. [https://doi.org/10.30191/ETS.202301_26\(1\).0009](https://doi.org/10.30191/ETS.202301_26(1).0009)
- Imran, M., & Almusharraf, N. (2023). Analyzing the role of ChatGPT as a writing assistant at higher education level: A systematic review of the literature. *Contemporary Educational Technology*, 15(4). <https://doi.org/10.30935/cedtech/13605>

- Johnson, P. C., Laurell, C., Ots, M., & Sandström, C. (2022). Digital innovation and the effects of artificial intelligence on firms' research and development – Automation or augmentation, exploration or exploitation? *Technological Forecasting and Social Change*, 179(April 2021).
<https://doi.org/10.1016/j.techfore.2022.121636>
- Karlsson, M. (2019). An analysis of the relationship among teacher feedback, feedforward, and grade on Swedish university students' compositions in English as a second language. *Arab World English Journal*, 10(3), 3–20.
<https://doi.org/10.24093/awej/vol10no3.1>
- Klayklung, P., Chocksathaporn, P., Limna, L., Kraiwanit, T., & Jangjarat, K. (2023). Revolutionizing education with ChatGPT: Enhancing learning through conversational AI. *Universal Journal of Educational Research*, 2(3), 2960–3722.
www.ujer.org
- Kuyyogsuy, S. (2019). Students' attitudes toward peer feedback: Paving a way for students' English writing improvement. *English Language Teaching*, 12(7), 107.
<https://doi.org/10.5539/elt.v12n7p107>
- Mackiewicz, J., & Thompson, I. (2024). The global-local dualism in writing center studies. *Praxis: A Writing Center Journal*, 21(3), 14–24.
<https://repositories.lib.utexas.edu/server/api/core/bitstreams/0b81df87-da92-4025-9369-4a1cddfb877/content>
- Orak, C., & Turan, Z. (2024). Using artificial intelligence in digital video production: A systematic review study. *Journal of Educational Technology & Online Learning*, 7(3), 286–307. Doi: <http://doi.org/10.31681/jetol.1459434>
- Özdemir, O., & Karafil, B. (2022). Exploring the topic selection tendencies of university students in L2 writing conditions of the Creative Commons Attribution license (CC BY-NC-ND) ([http://creativecommons.org/licenses/by-nc-](http://creativecommons.org/licenses/by-nc-nd/)

- nd/4.0/). *International Journal of Curriculum and Instruction*, 15(1), 486-507. <https://orcid.org/0000-0002-4536-4049>
- Perks, B. J., Colpitts, B. D. F., & Michaud, M. (2021). The role of individual preferences in the efficacy of written corrective feedback in an English for academic purposes writing course. *Australian Journal of Teacher Education*, 46(10), 1-20. <https://doi.org/10.14221/ajte.2021v46n10.1>
- Ramirez, E. A. B., & Esparrell, J. A. F. (2024). Artificial Intelligence (AI) in education: Unlocking the perfect synergy for learning. *Educational Process: International Journal*, 13(1), 35-51. <https://doi.org/10.22521/edupij.2024.131.3>
- Rinanda, K., Hartono, R., Rozi, F., & Semarang, U. N. (2024). The effectiveness of using Padlet and Slack application in teaching writing. *JEELS (Journal of English Education and Linguistics Studies)*, 11(2), 717-746. <https://doi.org/10.30762/jeels.v11i2.3150>.
- Ringler, H. (2018). *Placing Writing Tasks in Local and Global Contexts : The Case of Argumentative Writing*. 2(2017), 34-77. <https://doi.org/10.37514/JWA-J.2018.2.1.03>
- Robinson, R., Liday, C., Lee, S., Williams, I. C., Wright, M., An, S., & Nguyen, E. (2023). Artificial intelligence in health care—Understanding patient information needs and designing comprehensible transparency: Qualitative study. *Jmir Ai*, 2, e46487. <https://doi.org/10.2196/46487>
- Ruru, T. A. N., & Sulisty, T. (2020). Peer review in writing activities: outcomes and perceptions of EFL students. *Journal of Research on English and Language Learning*, 1(2), 133-140. <https://doi.org/http://dx.doi.org/10.33474/j-reall.v1i2.6845>
- Stojanov, A. (2023). Learning with ChatGPT 3.5 as a more knowledgeable other: an autoethnographic study. *International Journal of Educational Technology in Higher Education*, 20(1), 1-17. <https://doi.org/10.1186/s41239-023-00404-7>

- Su, J., & Yang, W. (2023). Unlocking the power of ChatGPT: A framework for applying generative AI in education. *ECNU Review of Education*, 6(3), 355-366.
<https://doi.org/10.1177/20965311231168423>
- Sulisty, T., Dewantara, A., Widiastuti, O., & Marhaban, S. (2024). Student-teacher relationship : Written feedback provision and writing performance. *Englisia: Journal of Language, Education, and Humanities* 12(1), 113-125.
<https://doi.org/10.22373/ej.v12i1.23104>
- Sulisty, T., & Heriyawati, D. F. (2017). Reformulation , text modeling , and the development of EFL academic writing. *Journal on English as a Foreign Language*, 7(1), 1-16.
- Sulisty, T., Mukminatien, N., Cahyono, B. Y., & Saukah, A. (2019). Enhancing learners ' writing performance through blog-assisted language learning. *International Journal of Emerging Technologies in Learning (IJET)*, 14(9), 61-73.
<https://doi.org/http://dx.doi.org/10.3991/ijet.v14i09.9535>
- Sulisty, T., Sholeh, A., & Sari, N. (2021). Teacher multimodal feedback : Investigating students ' preferences and voices. *English Teaching Journal*, 9(2), 128-136.
<https://doi.org/10.11591/etj.v9i2.10759>
- Tlili, A., Shehata, B., Adarkwah, M. A., Bozkurt, A., Hickey, D. T., Huang, R., & Agyemang, B. (2023). What if the devil is my guardian angel: ChatGPT as a case study of using chatbots in education. *Smart Learning Environments*, 10(1), 1-24.
<https://doi.org/10.1186/s40561-023-00237-x>
- Tossell, C. C., Tenhundfeld, N. L., Momen, A., Cooley, K., & de Visser, E. J. (2024). Student perceptions of ChatGPT use in a college essay assignment: Implications for learning, grading, and trust in artificial intelligence. *IEEE Transactions on Learning Technologies*, 17, 1069-1081.
<https://doi.org/10.1109/TLT.2024.3355015>

- Utami, S. P., Andayani, Winarni, R., & Sumarwati. (2023). Utilization of artificial intelligence technology in an academic writing class: How do Indonesian students perceive? *Contemporary Educational Technology*, 15(4), 1-13. <https://eric.ed.gov/?q=ai+tools+for+writing+Egnlish+essays&pr=on&ft=on&id=EJ1406915>
- Yoon, C. W., & Chon, Y. V. (2022). Machine translation errors and L2 learners' correction strategies by error type and English proficiency. *English Teaching(South Korea)*, 77(3), 153-175. <https://doi.org/10.15858/engtea.77.3.202209.153>
- Zhu, C., ASun, M., Luo, J., & Wang, M. (2023). How to harness the potential of ChatGPT in education ? *Knowledge Management & E-Learning*, 15(2), 133-152. <https://doi.org/https://doi.org/10.34105/j.kmel.2023.15.008>