APPLING
International Applied Linguistics Research Conference

https://doi.org/10.29140/9781763711662-4

Investigating the Effect of ChatGPT as a Feedback Tool on English Writing: Evidence from Foreign Trade University – Ho Chi Minh City of Vietnam

Thi My Dung Dang
Foreign Trade University – Ho Chi Minh City, Vietnam

Abstract

This study investigates the impact of ChatGPT, an AI-driven writing evaluation tool, on the writing skills of undergraduate EFL students at Foreign Trade University HCMC, conducted between March and May 2024, using ChatGPT (GPT-4o version). While AI-powered tools are believed to positively influence student writing, empirical evidence regarding ChatGPT's specific effects is still limited in Vietnam. A mixed-methods study was conducted, using three tests and focus group discussions (FGDs) with tertiary-level EFL students. Data were collected primarily through three tests of writing, each comprising three tasks focusing on process, comparison, and cause-effect. The findings revealed a significant positive impact of ChatGPT on learners' academic English writing abilities and their perceptions of its effectiveness as a writing tool. The study highlights the advantages of using ChatGPT as a dialogic tool and reliable writing resource. With appropriate student training, ChatGPT can serve as a beneficial feedback tool, particularly in large-sized classes. This research suggests that ChatGPT can be a valuable instrument in improving the writing skills of ESL students, offering a more substantial positive impact than other AI-driven tools. Future research could explore its effects on various specific genres and micro-aspects of writing, providing a more comprehensive understanding of its potential in higher educational institutions.

Keywords: AI, EFL, writing skills, formative feedback

E-mail: dangthimydung.cs2@ftu.edu.vn & dtd1ocd@bolton.ac.uk

In Remy Decorte, Serge Bibauw & Glenn Stockwell (Eds.)
Proceedings of the Inaugural International Applied Linguistics Conference, 2025 (pp. 1–8). Castledown.

Introduction

Formative feedback is recognized for its beneficial influence on students' writing proficiency (Olsen & Hunnes, 2023). Typically integrated with formative assessment methods like self- and peer assessment, this feedback can address students' specific requirements for clarification across diverse writing dimensions, including content, organization, grammar, vocabulary, and style. As an ongoing process, formative feedback provides immediate assistance to students during their writing development. Nevertheless, its implementation presents challenges in large classroom settings, especially within Vietnamese educational institutions, primarily due to its time-intensive nature.

Globally, the adoption of AI-driven automated feedback is increasingly common. Leveraging large language models, tools such as ChatGPT can generate valuable writing examples, adapt text complexity to align with learners' proficiency levels, offer structural advice, and facilitate guided writing activities. These capabilities have the potential to foster self-reliance and satisfy the demand for immediate feedback. Despite these potential benefits, there is limited empirical evidence regarding ChatGPT's specific impact on writing skills in the Vietnamese context. Therefore, this study investigated the effect of ChatGPT, utilized as a feedback mechanism, on the academic writing abilities of Vietnamese undergraduates in large classes at Foreign Trade University HCMC (FTU HCMC) during the Spring 2024 semester (March to May). The central hypothesis of this research was that ChatGPT would significantly influence these students' writing skills.

Literature Review

Formative feedback plays a crucial role in enhancing writing instruction (Olsen & Hunnes, 2023). It becomes especially effective when implemented through self-assessment (SA) and peer assessment (PA), which promote metacognitive skills (Lam, 2018). These assessment strategies are beneficial in large classes by encouraging learner autonomy and engagement. However, the application of SA and PA in such contexts faces limitations, particularly with regard to scalability and consistency in feedback quality (Fathi & Khodabakhsh, 2019; Mahapatra, 2024). As a result, scholars argue for the integration of more intelligent and scalable feedback mechanisms that can maintain a dialogic, personalized learning experience (Kohnke et al., 2023).

AI-powered tools like Grammarly and ChatGPT are gaining attention due to their accessibility and rapid feedback capabilities (Marzuki et al., 2023;

Zhao, 2022). While Grammarly has been widely studied and its positive contributions to writing development are well-documented (Fitriana & Nurazani, 2022), the educational use of ChatGPT is relatively novel and underexplored. ChatGPT offers dynamic support in areas such as idea generation, text organization, grammatical accuracy, and lexical diversity (Allagui, 2023; Kohnke et al., 2023; Su et al., 2023; Wang & Guo, 2023). Moreover, its adaptive feedback delivery aligns with contemporary pedagogical frameworks that view feedback as an interactive and learner-centered process (Winstone & Carless, 2020; Barrot, 2023).

In the Vietnamese higher education context, particularly within English language teaching (ELT), the growing class sizes and limited instructor time make timely and personalized feedback challenging. Most research has concentrated on tools like Grammarly or automated test preparation software, with little empirical investigation into the pedagogical effects of generative AI technologies such as ChatGPT on students' writing proficiency in Vietnam.

Methodology

A mixed-methods intervention design was adopted (Creswell & Plano Clark, 2017). An intact class of 72 first-year undergraduate EFL students at FTU HCMC, with IELTS scores of 6.5–8.0, was divided into an experimental group (EG, n = 35) and comparison group (CG, n = 37). All had English as a foreign language, aged 18–19, and prior exposure to AI tools like Grammarly but not ChatGPT for writing. Participation was voluntary. The comparison group received traditional instructor-led feedback without AI integration, which, while effective for personalization, is less scalable in large Vietnamese EFL classes due to time constraints; this design allowed us to isolate ChatGPT's unique dialogic contributions rather than a no-feedback control, aligning with ethical considerations for student support in required courses (Barrot, 2023).

Data were collected via three writing tests (pre-, post-, and delayed post-test), each with tasks on process, comparison, and cause-effect writing (150 words each). Rubrics evaluated content, organization, grammar, and vocabulary (inter-rater reliability: Cohen's $\kappa = 0.8$). Qualitative data came from three FGDs with five EG students, focusing on experiences with ChatGPT for SA and PA.

The EG received a 2-hour training session on ChatGPT usage, adapted from Mathur and Mahapatra (2022) but customized for this study: it covered prompt engineering (e.g., 'Provide formative feedback on this paragraph's organization and grammar, suggesting revisions for clarity'), iterative

querying for metalinguistic explanations, and integration with SA/PA (e.g., using ChatGPT outputs to refine peer reviews). This was followed by a 6-hour intervention over one month (total 8 hours), integrating ChatGPT into writing lessons via guided prompts for idea generation, drafting, and revision. Specific prompts included: 'Revise this sentence for lexical diversity while maintaining EFL learner tone' and 'Explain why this transition improves coherence.' CG followed traditional instruction without ChatGPT. Post-test occurred immediately after intervention; delayed post-test and final FGD were conducted two months later.

Quantitative analysis used one-way repeated measures ANOVA, Bonferroni post-hoc, and t-tests (Loewen & Plonsky, 2017; Rose et al., 2020). Qualitative data were coded under themes (content, organization, grammar) (Huffman et al., 2019).

Research Findings

The impact was positive and significant. EG mean scores improved from pre-test ($M = 12.58$, $SD = 0.83$) to post-test ($M = 19.22$, $SD = 2.49$) and delayed post-test ($M = 20.42$, $SD = 2.58$). RM ANOVA showed significant differences ($F(2,72) = 330.70$, $p < 0.001$, $\eta^2 = 0.90$). Post-hoc revealed differences between pre-post ($p < 0.001$, $d = -3.30$), pre-delayed ($p < 0.001$, $d = -3.90$), and post-delayed ($p < 0.01$, $d = -0.60$). T-tests confirmed EG outperformed CG on post-test ($t(70) = -5.64$, $p < 0.001$) and delayed post-test ($t(70) = -9.37$, $p < 0.001$).

FGDs revealed positive perceptions: ChatGPT aided idea generation (22 references), focus (21), autonomy (19), collaboration (15); improved organization via connections (17), signposts (11) ; enhanced grammar accuracy (22), explanations (17). Minor negatives included reduced motivation to think (4), machine dependence (3). Students also noted sustained benefits from training-enabled metalinguistic feedback and personalized support, which reinforced retention (15 references), alongside SA/PA integration (12 references).

Table 1. Experimental group mean scores across writing tests

Tests	Mean	SD	N
Pre-test	12.58	0.83	37
Post-test	19.22	2.49	37
Delayed post-test	20.42	2.58	37

Table 2. Themes and references from focus group discussions

Themes and Sub-themes	Codes	References
Content Positive	Idea generation, focus, autonomy, collaboration	22, 21, 19, 15
Content Negative	Reduced motivation, machine dependence	4, 3
Organization Positive	Connections, signposts	17, 11
Grammar Positive	Accuracy, explanations	22, 17
Sustained Retention	Metalinguistic feedback, personalized support, SA/PA integration	15, 12

Discussion

EG's superior performance aligns with AI-driven tool studies (Marzuki et al., 2023; Zhao, 2022), strengthening claims of positive impact on content, organization, and grammar (Rudolph et al., 2023). Delayed post-test results indicate sustained retention (Rose et al., 2020), as evidenced by FGD themes on training, SA/PA integration, metalinguistic feedback, and personalized support. This is particularly relevant for high-proficiency learners (IELTS 6.5–8.0), who leveraged ChatGPT's adaptability. Positive perceptions confirm literature on AI tools fostering autonomy and collaboration (Dai et al., 2023; Rudolph et al., 2023), with new insights on focus and robust sentences (Gayed et al., 2022; Guo et al., 2022; Marzuki et al., 2023). Negatives echo ethical concerns like over-dependence (Yan, 2023). Findings support theories of dialogic feedback and ChatGPT as a reliable tool (Barrot, 2023; Winstone & Carless, 2020), especially in large Vietnamese classes (Thi & Nikolov, 2022; Ohio University, 2023).

Conclusion

ChatGPT significantly enhanced EFL students' writing at an established Vietnamese university, FTU HCMC, with positive perceptions. It proves valuable for formative feedback in large classes post-training. Future studies could examine lower-proficiency groups or genre-specific applications. Limitations include the short intervention and genre focus; future work with diverse genres could strengthen generalizability.

References

Allagui, B. (2023). Chatbot feedback on students' writing: Typology of comments and effectiveness. In O. Gervasi, B. Murgante, A. M. A. C. Rocha, C. Garau, F. Scorza, Y. Karaca, & C. M. Torre (Eds.), *Computational science and its applications—ICCSA 2023 workshops* (pp. 377–384). Springer. https://doi.org/10.1007/978-3-031-37129-5_31

Barrot, J. S. (2023). Using ChatGPT for second language writing: Pitfalls and potentials. *Assessing Writing, 57*(1). https://doi.org/10.1016/j.asw.2023.100745

Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research*. 3rd ed. SAGE Publications.

Dai, W., Lin, J., Jin, J., Chai, Y., Cui, M., Li, Z., Jiang, X., Pan, J., & Liu, E. (2023). An embodied, dialogic endeavor: Towards a posthumanizing approach to creativity with ChatGPT. *On the Horizon, 31*(3), 164–179.

Fathi, J., & Khodabakhsh, M. R. (2019). The role of self-assessment and peer-assessment in improving writing performance of Iranian EFL students. *International Journal of English Language Translation Studies, 7*(3), 1–10.

Fitriana, K., & Nurazani, N. (2022). Exploring students' perception of using Grammarly to check grammar in their writing. *Journal of English Teaching, 8*(1), 15–25. https://doi.org/10.33541/jet.v8i1.3044

Gayed, J. M., Carlon, M. K. J., Oriola, A. M., & Cross, J. S. (2022). Exploring an AI-based writing assistant's impact on English language learners. *Computers and Education: Artificial Intelligence, 3*(2). https://doi.org/10.1016/j.caeai.2022.100055

Guo, K., Chu, S. K. W., & Wang, J. (2022). Using chatbots to scaffold EFL students' argumentative writing. *Assessing Writing, 54*(1). https://doi.org/10.1016/j.asw.2022.100666

Huffman, T. P., Tracy, S. J., & Bisel, R. S. (2019). Beautiful particularity: using phronetic, iterative, and heuristic approaches to a positively deviant case. *Communication Research and Practice, 5*(4), 327–341. https://doi.org/10.1080/22041451.2019.1676632

Kohnke, L., Moorhouse, B. L., & Zou, D. (2023). ChatGPT for language teaching and learning. *RELC Journal, 54*(2), 537–550. https://doi.org/10.1177/00336882231162868

Lam, R. (2018). Understanding assessment as learning in writing classrooms: The case of portfolio assessment. *Iranian Journal of Language Teaching Research, 6*(3), 19–36. https://doi.org/10.30466/ijltr.2018.120599

Loewen, S., & Plonsky, L. (2017). *An introduction to second language acquisition research: Applied linguistics and second language acquisition*. Routledge.

Mahapatra, S. (2024). Impact of ChatGPT on ESL students' academic writing skills: a mixed methods intervention study. *Smart Learn. Environ*, *11*(9). https://doi.org/10.1186/s40561-024-00295-9.

Marzuki, W., Miura, Y., Runita, D., Indrawati, I., & Widyastuti, U. (2023). The impact of AI writing tools on the content and organization of students' writing: EFL teachers' perspective. *Cogent Education, 10*(2). https://doi.org/10.1080/2331186X.2023.2236469

Mathur, A., & Mahapatra, S. (2022). Impact of AI on L2 writing: Exploring the capabilities and limitations of AI in providing feedback to L2 writers. *Languages*, *7*(4), 15–22.

Moradi, M. & Karimpour, Z. (2012). The Effect of Online Peer Feedback on the Academic Writing Ability of Iranian EFL Learners. *International Education Studies, 5*(2), 113–117. https://doi.org/10.5539/ies.v5n2p113

Ohio University. (2023). *Center for teaching, learning, and assessment hosting activities focused on ChatGPT*. https://www.ohio.edu/news/2023-01-center-teaching-learning-and-assessment-hosting-activities-focused-chatgpt

Olsen, T., & Hunnes, J. (2023). Improving students' learning—the role of formative feedback: experiences from a crash course for business students in academic writing. *Assessment & Evaluation in Higher Education, 49*(2), 129–141. https://doi.org/10.1080/02602938.2023.2187744

Rose, H., McKinley, J., & Galloway, N. (2020). *Data collection research methods in applied linguistics*. Bloomsbury Publishing.

Rudolph, J., Tan, S., & Tan, S. (2023). ChatGPT: Bullshit spewer or the end of traditional assessments in higher education? *Journal of Applied Learning and Teaching, 6*(1), 342–363. https://doi.org/10.37074/jalt.2023.6.1.9

Su, Y., Lin, Y. and Lai, C. (2023) Collaborating with ChatGPT in argumentative writing Classrooms. *Assessing Writing, 57*(2). https://doi.org/10.1016/j.asw.2023.100752

Thi, N. K., & Nikolov, M. (2022). How teacher and Grammarly feedback complement one another in Myanmar EFL students' writing. *Asia Pacific Education Researcher, 31*(6), 767–779. https://doi.org/10.1007/s40299-021-00625-2

Wang, Y., & Guo, Y. (2023). Research on the application of ChatGPT in college English writing teaching. In *Proceedings of the International Conference on Education, Humanities, Management and Information Technology* (pp. 148–153). Atlantis Press. https://doi.org/10.2991/978-94-6463-140-1_20

Winstone, N., & Carless, D. (2020). *Designing effective feedback processes in higher education: A learning-focused approach*. Routledge.

Yan, D. (2023). Impact of ChatGPT on learners in a L2 writing practicum: An exploratory investigation. *Education and Information Technologies, 28*(11), 13943–13967. https://doi.org/10.1007/s10639-023-11742-4

Zhao, X. (2022). Leveraging artificial intelligence (AI) technology for English writing: Introducing Wordtune as a digital writing assistant for EFL writers. *RELC Journal, 53*(3), 614–619. https://eric.ed.gov/?q=tone+AND+writing&pg=2&id=EJ1404079