**Enhancing Academic Writing for IELTS Tasks Using Generative AI Claude: An Exploratory Pilot Study**

Introduction: This exploratory research seeks to determine the effect of generative AI as an immediate corrective feedback tool to increase the frequency of specific vocabulary in IELTS Writing Task 1. The study focuses on English Teaching Program students within a context where student AI use is increasingly unregulated, and where traditional teacher feedback limitations (delays and workload) hinder students’ progress.

Methods: A pre-experimental design with mixed methods was implemented, incorporating 22 participants in a natural group. The quantitative methodology included pre- and post-tests with IELTS band score measurements and Lexical Profiler data (objective vocabulary metrics), subjected to statistical analysis. The qualitative component encompassed sentiment analysis of students' perceptions of the intervention. The methodology was structured in four stages: training on IELTS Task 1 and Claude usage, pre-test data collection with handwritten texts, repeated cycles of immediate corrective feedback and editing, and finally post-test data collection with production of new handwritten texts and a reflection questionnaire. This mixed-methods approach provides methodological advantages through triangulation, validation, and replicability.

Results: Preliminary findings show an 11.8% increase in overall vocabulary production, with greater variety in unique word use (p = .002) and significant increase in total words produced (p = .011). Seventy-seven percent of participants (17/22) showed improvement in IELTS band scores. Qualitative analysis revealed positive reception and high student engagement, highlighting feedback as immediate, accessible, explicit, and specific. Students developed metacognitive awareness, recognizing the tool's usefulness and progressing from basic awareness to strategic planning, establishing connections between tool use and writing skill development.

Discussion: This pilot study demonstrates the potential of generative AI as an educational tool that transforms traditional delayed feedback into a more dynamic assessment ecosystem, promoting AI literacy and academic writing competencies when used strategically as a learning tool.

**Keywords:** generative artificial intelligence, IELTS academic writing, immediate corrective feedback

**Bibliography**

Ali, A., Alzoraiki, M., Milhem, M., & Ateeq, R. A. (2024). Artificial intelligence in education: Implications for academic integrity and the shift toward holistic assessment. Frontiers in Education, 9. <https://doi.org/10.3389/feduc.2024.1470979>

​Holmes, W., Bialik, M., & Fadel, C. (2019). Artificial Intelligence in Education: Promises and Implications for Teaching and Learning. Journal of Educational Technology & Society, 22(1), 11–22.​

Lee, I. (2019). Teacher written corrective feedback: Less is more. Language Teaching, 52(4), 524–536. <https://doi.org/10.1017/S0261444819000247>

​Wilson, J., & Roscoe, R. D. (2019). Automated writing evaluation and feedback: Multiple metrics of efficacy. Journal of Educational Computing Research, 57(4), 913–944. <https://doi.org/10.1177/0735633118794514>​

Yildiz, H., & Kuru Gonen, S. I. (2024). Automated writing evaluation system for feedback in the digital world: An online learning opportunity for English as a foreign language students. Turkish Online Journal of Distance Education (TOJDE), 25(1), 142–158.​

​Yusuf, S., Abubakar, J., Durodola, R., Ocran, G., Hadassah, A., & Yusuf, P. (2024). Impact of AI on continuous learning and skill development in the workplace: A comparative study with traditional methods. World Journal of Advanced Research and Reviews, 23, 1129–1140. https://doi.org/10.30574/wjarr.2024.23.2.2439