ENHANCING ENGLISH WRITING SKILLS THROUGH ARTIFICIAL INTELLIGENCE TECHNOLOGIES: DIGITAL COMPETENCIES AND CRITICAL ANALYSIS SKILLS FOR UZBEK SCHOOL STUDENTS

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Abstract. *This article examines the potential of artificial intelligence technologies in developing English writing competencies among Uzbek school students, with particular emphasis on fostering digital literacy and critical thinking skills. Findings suggest that successful integration of AI in English writing education depends on teacher preparedness, curriculum alignment, and balanced approaches that combine technological affordances with humanistic language pedagogy.*

Keywords: *artificial intelligence, English writing skills, digital competencies, critical thinking, Uzbek education, automated feedback, adaptive learning*

Introduction

The application of AI in English language teaching is a highly innovative change of not only the teachers' methods but also the students' learning, in particular, to places where the knowledge of English is still the main educational goal. In Uzbekistan, since 2012, the English teaching paying gradually through reforms has been the main cause of the students still being unable to develop their writing skills to the full extent due to the lack of exposure to real language use, inadequate feedback and traditional teacher-oriented methods [1]. The arrival of advanced AI writing helpers like grammar checkers, style analyzers, and generative language models, among others, has already created a very open door for the overcoming of these teaching and learning gaps by offering instant, individualized feedback and learning support [2]. Nevertheless, the usage of such technology in classrooms still has to be carefully planned in terms of its effects on students' independence, their analytical and reflective skills, and the real practice of the targeted skill [3]. This conflict between the advantages of technologies and the need to adhere to certain teaching principles becomes very strong in the area of writing teaching, where the creating of text itself is already a process of brain development and critical thinking [4]. The latest research in the computer-assisted language learning field states that the successful AI incorporation requires not only technology access but also the systematic buildup of digital literacies allowing the students to evaluate critically, choose wisely, and eventually get ahead of AI support in their writing development [5].

Methodology and literature review

This study uses a comprehensive literature review methodology by systematically analyzing the peer-reviewed research, policy documents, and theoretical frameworks. The analytical framework is based on sociocultural theories of learning, which view technology as a mediating tool that not only influences but also directs cognitive development through interaction and culture [6]. Different studies carried out in different international contexts and showing students using AI feedback systems as a successful method, have demonstrated significant increases in grammatical accuracy, vocabulary range, and overall text quality compared to the control group which received traditional teaching only [7]. The research on AI use in developing educational systems which is most pertinent to the Uzbek situation indicates that often the technological deployment is done without providing the necessary teacher training, redesigning their pedagogical methods, or critical literacy teaching which leads to superficial adoption that is not able to realize the potential of technology and thus the frustrated hope of the schools [8]. The notion of critical AI literacy arises as a key concept in the debate about educational technology today since it refers to the abilities that include comprehension of AI power and limitations, judgement of AI's textual output for correctness and suitability, and securing one's own voice while wisely making use of the technological support [9]. The methodology corresponds to the recommendations for critical digital literacy education made globally that equip the students with the skill to work their way through progressively AI-dominated information ecosystems [10].

Results and discussion

The synthesis of existing literature reveals several critical insights regarding the implementation of AI technologies for English writing instruction among Uzbek school students, alongside significant implications for developing digital competencies and critical analysis skills. First, the evidence suggests that AI writing assistants demonstrate measurable efficacy in improving surface-level writing features such as grammatical accuracy, spelling, and basic sentence structure, areas where Uzbek students typically struggle due to systemic differences between Uzbek and English linguistic structures [1][7]. These tools provide immediate, individualized feedback that addresses the practical constraints of large class sizes and limited teacher availability characteristic of Uzbek schools, enabling more iterative revision processes than traditional instruction allows.

However, the research simultaneously indicates that exclusive reliance on AI feedback without complementary human instruction and peer interaction limits development of higher-order writing competencies including rhetorical awareness, audience sensitivity, and argumentative coherence [3]. This finding suggests that optimal pedagogical models

position AI tools as supplements rather than replacements for human instruction, creating blended learning environments where technology handles routine error correction while teachers focus on conceptual development and strategic writing instruction. Second, the literature reveals a critical pedagogical challenge regarding learner autonomy and critical thinking development in AI-augmented writing contexts.

The implications for Uzbek education are particularly significant given examination systems that prioritize accuracy over critical thinking, potentially reinforcing student dispositions toward algorithmic compliance rather than analytical evaluation. Addressing this challenge requires explicit pedagogical interventions that teach students to interrogate AI feedback, compare multiple revision options, and articulate rationales for accepting or rejecting technological suggestions. Third, the research identifies digital competency development as an essential but frequently neglected dimension of AI integration in language education.

However, current curricula rarely address such literacies systematically, suggesting need for explicit integration of critical technology education within English language instruction. Fourth, contextual analysis reveals specific challenges for implementing AI writing tools in Uzbek schools, including inconsistent internet connectivity, limited access to devices, varying levels of digital literacy among teachers, and institutional cultures that may view AI assistance as promoting academic dishonesty rather than supporting learning [8]. These factors necessitate careful adaptation of international best practices to local contexts, including development of offline-capable tools, comprehensive teacher professional development, and clear institutional policies distinguishing appropriate pedagogical use of AI from academic misconduct.

Conclusion

This analysis demonstrates that artificial intelligence technologies offer significant but conditional potential for enhancing English writing skills among Uzbek school students, provided implementation occurs within carefully designed pedagogical frameworks that prioritize critical thinking and digital competency development alongside language acquisition. The evidence indicates that AI writing tools effectively address specific instructional challenges including limited feedback availability and surface-level error correction, yet simultaneously pose risks to learner autonomy and critical engagement when deployed without complementary instruction in critical AI literacy. For Uzbek educational contexts, successful integration requires addressing infrastructural constraints, developing teacher capacity for technology-mediated instruction, and explicitly teaching students to critically evaluate and strategically utilize AI assistance rather than accepting algorithmic suggestions passively. The research underscores that

writing in the AI era demands new competencies beyond traditional language skills, including understanding of technological capabilities and limitations, ability to evaluate AI-generated content critically, and capacity to maintain authorial voice while leveraging technological support.

REFERENCES

1. Hasanova, D., & Shadieva, T. (2019). Challenges in teaching English as a foreign language in Uzbekistan. International Journal of English Linguistics, 9(4), 87-95.

2. Chen, X., & Hao, M. (2023). The effectiveness of AI-powered writing assistants in ESL contexts: A meta-analysis. Computer Assisted Language Learning, 36(3), 412-438.

3. Warschauer, M., & Grimes, D. (2024). Audience, authorship, and AI: Implications for writing instruction. Journal of Second Language Writing, 58, 101089.

4. Flower, L., & Hayes, J. R. (1981). A cognitive process theory of writing. College Composition and Communication, 32(4), 365-387.

5. Dussel, I. (2023). Critical literacy in the age of artificial intelligence: Challenges for education. Prospects, 52(1-2), 145-160.

6. Lantolf, J. P., & Thorne, S. L. (2021). Sociocultural theory and L2 learning. In B. VanPatten & J. Williams (Eds.), Theories in second language acquisition (3rd ed., pp. 223-247). Routledge.

7. Li, J., Link, S., & Hegelheimer, V. (2022). Automated writing evaluation in L2 writing: A review of effectiveness and implementation. Language Learning & Technology, 26(2), 78-101.

8. Ibraeva, A., & Sayfutdinova, G. (2021). Digital transformation in Central Asian education: Opportunities and barriers. Central Asian Survey, 40(4), 512-529.

9. Miao, F., Holmes, W., Huang, R., & Zhang, H. (2021). AI and education: Guidance for policy-makers. UNESCO Publishing.

10. Pangrazio, L., & Sefton-Green, J. (2024). AI literacy: Understanding critical competencies for the algorithmic age. Media and Communication, 12(1), 234-247.