ChatGPT as an AI-Based Tool for Developing English Writing Skills in Secondary School

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Abstract

This study investigates the effect of ChatGPT-assisted instruction on the English writing skills of ninth-grade students at School No. 272 in Tashkent, Uzbekistan. Ten students participated in a two-week classroom intervention in which ChatGPT was integrated into structured writing lessons as a feedback and revision tool. A pre-test and post-test measured changes in writing performance across four criteria — grammatical accuracy, vocabulary range, text organization, and coherence — while a questionnaire gathered students' perceptions of the tool. The results showed a mean score increase of 17.8 points, with vocabulary demonstrating the largest individual gain of 5.5 points. Questionnaire responses indicated broadly positive student attitudes, with an overall mean of 4.07 out of 5. The findings suggest that ChatGPT can serve as an effective and accessible writing support tool in secondary school EFL classrooms, particularly when integrated alongside teacher guidance rather than as a standalone resource.

Keywords:

ChatGPT, writing skills, EFL learners, secondary school, AI-assisted language learning, Uzbekistan

1. Introduction

Anyone who has tried to teach writing to a class of thirty teenagers knows the problem. Every student needs individual feedback, and there is simply not enough time to give it. A student submits a paragraph, the teacher marks it up, returns it a week later.

By that point, the student has moved on mentally, if not physically. The feedback arrives too late to feel connected to the original task.

This is not a new problem, and it is not one that teachers have failed to notice. It is simply a structural reality of classroom teaching that has proved stubbornly resistant to easy solutions. Until recently, the options were limited: peer feedback, self-assessment, or in better-resourced schools, writing centers and tutors. None of these fully replaces the kind of immediate, specific, individual response that actually helps a learner improve.

ChatGPT changes the equation somewhat. As a text-based AI tool, it can read a piece of writing and respond to it within seconds, pointing out grammatical errors, suggesting better vocabulary choices, and commenting on structure and coherence. The feedback is not perfect, and it is not a substitute for a skilled teacher's judgment. But it is immediate, it is consistent, and it is available to every student in the room at the same time. For writing instruction in particular, these qualities matter.

This study was conducted to find out whether this kind of AI-assisted feedback actually improves writing outcomes for secondary school learners, and what students make of the experience. It was carried out at School No. 272 in Tashkent, Uzbekistan, a context in which research on ChatGPT in the classroom is still scarce, with ten ninth-grade students over two weeks.

2. Literature review

The use of ChatGPT in writing instruction has attracted a growing body of research since the tool became widely available. The overall picture that emerges from this literature is broadly positive, though not without important qualifications.

Several studies have documented measurable improvements in writing performance following ChatGPT-assisted instruction. Song and Song (2023) found

significant gains in writing quality and motivation among EFL students who used ChatGPT compared to those who did not. Polakova and Ivenz (2024) reported similar improvements in a semester-long study, noting that students showed particular progress in grammatical accuracy and lexical variety. A study in Brunei Darussalam found that 37 pre-university students who had previously failed an English writing course demonstrated clear improvement after integrating ChatGPT into their writing process, with 14 achieving a credit and 23 passing (Rozaimee & Mumin, 2025). Research in an Indonesian vocational high school found consistent gains across vocabulary, grammar, and text organization over two instructional cycles, with vocabulary showing the most notable development (Janah et al., 2026).

Register awareness is another area where ChatGPT has shown promise. Punar Özçelik and Yangın Ekşi (2024) found that students using ChatGPT as a writing assistant improved noticeably in formal writing tasks, with the tool providing effective corrections on grammar, vocabulary, and sentence structure in academic genres. The same study noted, however, that ChatGPT was less reliable for informal and neutral registers, sometimes over-formalizing language in contexts where a more casual tone would have been appropriate.

The comparison between AI and teacher feedback has also been explored. Steiss et al. (2024) found that while trained teachers generally produced higher-quality feedback, ChatGPT's feedback was sufficiently useful for formative purposes. More significantly, Solhi et al. (2025) found that combining AI and teacher feedback produced better outcomes than either alone, a finding with practical implications for how ChatGPT should be positioned in the classroom.

Challenges have also been documented. Yan (2023) found that students expressed concerns about over-reliance and academic integrity after using ChatGPT in a writing

practicum. Draxler et al. (2023) warned that heavy AI use could erode the cognitive processes involved in writing. Yoon et al. (2023) noted the risk of hallucination, meaning plausible-sounding but factually inaccurate feedback, which students may accept uncritically if not guided otherwise.

Despite this growing body of research, evidence from Uzbekistan's secondary school context remains limited. This study was designed to contribute classroom-based empirical data to fill that gap.

3. Methodology

3.1 Participants

Ten ninth-grade students from School No. 272 in Yunusabad district, Tashkent, participated in the study. Five were female and five were male, aged between 15 and 16. Their English proficiency was estimated at A2 to B1 level on the CEFR scale, based on classroom observation and pre-test performance. Participation was voluntary, and all students were informed of the study's purpose before it began.

3.2 Instruments

Three instruments were used. The pre-test and post-test were both written compositions of approximately 100 to 150 words, completed by hand on paper without any assistance. The pre-test topic was "Describe your daily routine" and the post-test topic was "Describe a place you would like to visit in the future." Both were assessed using a four-criterion analytic rubric covering grammatical accuracy, vocabulary range, text organization, and coherence, each scored out of 25 points.

The questionnaire consisted of ten Likert-scale items rated from 1 (Strongly Disagree) to 5 (Strongly Agree), exploring students' perceptions of ChatGPT's usefulness, its effect on motivation and confidence, and their willingness to use it in the

future. Three open-ended questions gathered qualitative responses about benefits, challenges, and overall impact.

3.3 Procedure

The intervention lasted two weeks and consisted of ten lessons. On Day 1, students completed the pre-test and received an orientation to ChatGPT. Over Days 2 to 9, students took part in eight structured writing lessons following a three-stage format: independent drafting by hand, AI-assisted revision using ChatGPT, and brief written reflection on the changes made. The teacher's role during lessons was limited to technical support, to ensure that observed improvements could be attributed primarily to the use of ChatGPT. On Day 10, students completed the post-test and questionnaire.

4. Results

4.1 Writing performance

All ten participants showed improvement between the pre-test and post-test. The group mean score rose from 62.8 to 80.6, a gain of 17.8 points, moving the group's average from the Satisfactory to the Good band on the scoring rubric. Individual gains ranged from 7 points (S4, who entered with the highest pre-test score of 78) to 38 points (S1, who progressed from 50 to 88).

Examining results by criterion, vocabulary range showed the largest mean gain at 5.5 points, from a pre-test mean of 14.7 to a post-test mean of 20.2. This was also the criterion with the lowest pre-test score, suggesting that students had the most room for development in this area and responded strongly to ChatGPT's vocabulary suggestions. Coherence improved by 4.3 points, grammatical accuracy by 4.2 points, and text organization by 3.8 points, the smallest gain, though also the criterion with the highest pre-test mean.

4.2 Questionnaire results

The overall mean across all ten Likert-scale items was 4.07 out of 5, indicating broadly positive student perceptions. The highest-rated item was "ChatGPT can be a useful tool for learning English at school" with a mean of 4.7. Grammar feedback usefulness received 4.5, and both vocabulary support and lesson enjoyment scored 4.2. The lowest-rated item was clarity of feedback at 3.5, reflecting some students' difficulty with ChatGPT's occasionally complex or formal language.

Three themes emerged consistently from the open-ended responses: the value of immediate feedback, vocabulary development, and improved understanding of writing structure. Several students also noted reduced writing anxiety and greater willingness to attempt longer texts.

5. Discussion

The results of this study are consistent with the broader pattern in the literature: ChatGPT-assisted instruction can produce meaningful improvements in writing performance over a relatively short period, particularly in vocabulary and coherence. The fact that every participant improved regardless of starting level suggests that the tool has something to offer across a range of proficiency levels.

The vocabulary finding deserves particular attention. Students at A2 to B1 level often have a reasonable passive vocabulary but struggle to activate it in production. ChatGPT's suggestions appear to bridge this gap effectively, showing students what better word choices look like in context, which is arguably more useful than being told in the abstract that their vocabulary is limited.

The challenges reported by students, including prompt formulation difficulties, usage limits, and occasionally complex feedback, are real and should not be minimized. Prompt writing is a skill that needs to be taught explicitly and does not come naturally,

especially for younger learners. Teachers who introduce ChatGPT without allocating time to this are likely to find that students get less out of the tool than they could.

The broader implication of the findings is about positioning. ChatGPT is most valuable when it fills a gap that classroom teaching cannot easily address, namely immediate individual feedback for every student simultaneously. When that is understood, and when the teacher remains actively involved in guiding how students use and interpret AI feedback, the combination appears to work well. When ChatGPT is used instead of the teacher, or without structure, the risk of over-reliance and uncritical acceptance of feedback becomes real.

6. Limitations

Like any small-scale classroom study, this one comes with limitations that should be acknowledged honestly. The most obvious is the sample size. Ten students is a small group, and results from a single class at a single school in Tashkent cannot simply be extended to secondary school learners in general. The two-week timeframe is another constraint. Writing development is a slow process, and while the improvements observed here are real, it is not possible to say from this study alone whether those gains would hold up or continue to grow over a longer period.

The absence of a control group is also worth noting. Without a comparison group receiving traditional instruction, it is difficult to isolate exactly how much of the improvement was caused specifically by ChatGPT, as opposed to the additional focused writing practice, the novelty of the approach, or simply the extra attention students received during the intervention.

Finally, the study measured writing performance at one point in time after the intervention. Whether students retained the skills they developed, or continued to use ChatGPT productively in their own time, is a question this study cannot answer. Future

research with larger samples, longer timeframes, control groups, and follow-up assessments would provide a much clearer picture of ChatGPT's long-term contribution to writing development.

7. Recommendations

For classroom teachers, the key recommendation is to treat prompt writing as a teachable skill and devote explicit lesson time to it before the main intervention begins. Teachers should also continue providing their own feedback alongside ChatGPT rather than stepping back entirely, since the hybrid approach appears to be more effective than AI feedback alone. Setting clear guidelines for responsible use and designing tasks that require students to justify the revisions they make helps students engage with the tool critically rather than passively.

For school administrators and policymakers, the findings suggest that AI-integrated language learning is worth investing in, but only with the necessary infrastructure in place. Reliable internet access, sufficient devices, and teacher training are all essential preconditions. Introducing ChatGPT into classrooms without these foundations risks creating frustration rather than benefit.

For future researchers, several directions seem worth pursuing. A longer intervention with a control group would provide stronger evidence of ChatGPT's specific contribution to writing development. Studies examining other language skills such as speaking, reading, and listening would help build a more complete picture of AI's role in language education. Research that tracks the same students over an academic year would shed light on whether the improvements observed in short-term studies are sustained over time.

8. Conclusion

This study set out to find out whether ChatGPT could meaningfully improve the writing skills of secondary school EFL learners in a real classroom setting. The answer, based on two weeks of structured intervention with ten ninth-grade students in Tashkent, is a cautious yes. Scores improved across the board, vocabulary showed the strongest gains, and students reported broadly positive experiences. The tool is not perfect. Some feedback was too complex, usage limits caused disruptions, and prompt formulation needed explicit teaching. But as a complement to teacher instruction rather than a replacement for it, ChatGPT showed genuine potential.

References

• *Draxler, F., Werner, A., Lehmann, F., Probst, T., Schmidt, A., & Buschek, D. (2023). AI writing assistants change the way we phrase our thoughts. Proceedings of the ACM on Human-Computer Interaction.*

• *Janah, R., Tusino, T., & Dewi, P. (2026). Exploring the role of ChatGPT in developing writing skills. AL-ISHLAH: Jurnal Pendidikan, 18(1).*

• *Polakova, P., & Ivenz, P. (2024). The impact of ChatGPT feedback on EFL students' writing skills. Cogent Education, 11(1).*

• *Punar Özçelik, N., & Yangın Ekşi, G. (2024). Cultivating writing skills: The role of ChatGPT as a learning assistant. Smart Learning Environments, 11(10).*

• *Rozaimee, F., & Mumin, M. A. (2025). ChatGPT integration in writing development. World Journal of English Language, 15(8).*

• *Solhi, M., et al. (2025). The impact of integrating ChatGPT with teachers' feedback on EFL writing skills. System.*

• *Song, C., & Song, Y. (2023). Enhancing academic writing skills and motivation. Frontiers in Psychology, 14, 1260843.*

• *Steiss, J., et al. (2024). Comparing the quality of human and ChatGPT feedback. Learning and Instruction, 91, 101894.*

• *Yan, D. (2023). Impact of ChatGPT on learners in a L2 writing practicum. Education and Information Technologies, 28, 1–15.*

• *Yoon, S., Kang, E., & Kim, J. (2023). Cautions in the use of ChatGPT for language learning feedback. TESOL Quarterly.*