

CHATGPT AND GRAMMARLY IN GRAMMATICAL ERROR CORRECTION

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email: shakhnoza.bobojonova@gmail.com**Abstract**

This article compares the effectiveness of ChatGPT and Grammarly in correcting grammatical errors in written English. Based on recent empirical studies, it reviews both automatic evaluation metrics and human assessments to identify the strengths and limits of each tool. It also discusses their roles in language learning and considers the benefits of using both tools together.

Keywords: ChatGPT, Grammarly, grammatical error correction, automated writing evaluation, ESL/EFL learners.

1. Introduction

Artificial Intelligence (AI) refers to computer systems that can perform tasks that normally require human intelligence, such as learning, reasoning, and language understanding.

AI in language learning has developed significantly over time. Early systems were simple grammar checkers that could only detect basic spelling and punctuation mistakes. However, with the development of machine learning and natural language processing (NLP), modern AI systems became more advanced and capable of understanding context, meaning, and sentence structure.

In the modern digital world, artificial intelligence (AI) is rapidly changing education and communication. AI-based tools are widely used in language learning, especially for improving writing and reading skills. ChatGPT and Grammarly are two of the most popular tools designed to help users correct grammatical errors and improve text quality [4], [5]. Their wide use shows that AI is now a real part of language education, and any modern discussion of writing instruction must include them.

Grammar is one of the most important parts of communication. Poor grammar can lead to misunderstanding and weak academic writing. For this reason, students and professionals increasingly use AI tools. More than 30 million people use Grammarly every day [6], while ChatGPT attracted millions of users within only one week of its release [1]. This fast growth has happened faster than research, which means learners often use these tools without clear guidelines.

Feedback plays a key role in EFL writing instruction. However, giving personal feedback to many students is often time-consuming for teachers [7]. As a result, Automated Writing Evaluation (AWE) tools have appeared as practical supplements to teacher feedback [9], [10]. This change does not replace teachers — it changes their role: they now guide students in how to use and evaluate machine feedback.

Despite the wide use of these tools, their relative strengths and weaknesses are not fully understood. Some studies report that Grammarly performs better in standard correction, while others argue that ChatGPT gives richer feedback that is closer to human judgement. These different

results suggest that “which tool is better” is the wrong question. A more useful question is “which tool fits which purpose.”

2. Literature Review

Early AI-based language tools were simple grammar checkers that could only find basic spelling and punctuation mistakes. With the growth of machine learning and natural language processing (NLP), modern AI systems can now understand context, meaning, and complex sentence structures [9]. This change is not only technical but also pedagogical: the line between a “checker” and a “tutor” has become unclear, and learners must now use tools that combine both roles.

Modern AI tools such as ChatGPT and Grammarly can detect errors, improve sentence structure, suggest better vocabulary, help with essay writing, and explain reading texts. They are increasingly suggested as useful resources for writing instruction [10]. As a result, feedback is no longer rare, but learners must develop the skill of choosing and judging useful suggestions among large amounts of feedback.

ChatGPT

ChatGPT is an AI chatbot developed by OpenAI. It is based on the GPT model and is trained using instruction tuning and reinforcement learning from human feedback (RLHF) [11]. This training allows ChatGPT to engage in human-like interactions. Because it learns from human feedback rather than fixed grammar rules, it tends to act like a knowledgeable reader who rephrases sentences, rather than a strict checker that fixes errors one by one.

Its main features include grammar correction, explanation of rules, essay writing support, summarisation, and reading help. Several researchers argue that ChatGPT is not only a correction tool but also an educational assistant [12], [13]. This depth makes it especially useful in classrooms, since it can explain why something is wrong, not only what is wrong.

ChatGPT plays an important role in improving writing skills. It not only corrects errors but also explains them.

Advantages: Provides detailed explanations of grammar mistakes; can rewrite full essays or paragraphs; improves sentence structure and coherence; useful for academic writing and learning.

Disadvantages: May change the original meaning if instructions are unclear; requires user guidance for best results.

Grammarly

Grammarly is an AI-powered writing assistant focused on grammar correction and editing. It is used by over 30 million people every day [6] and reviews spelling, grammar, punctuation, clarity, and tone. Its large user base shows that for everyday writing, many people prefer a tool that is narrow but reliable.

Grammarly focuses on fast and accurate writing correction.

Advantages: Instant grammar and spelling correction; easy-to-use interface; suitable for professional writing; improves clarity and readability.

Disadvantages: Does not explain grammar rules in detail; limited learning support.

Grammarly is mainly designed for fast and accurate editing rather than for teaching grammar [14], [15]. Studies show that students who use Grammarly improve in grammar and punctuation accuracy. However, this narrow focus is also a limitation: students may produce better texts without

developing better skills, so the improvement is sometimes visible in the writing but not in the writer.

Mizumoto et al. compared ChatGPT, Grammarly, and human evaluators using the Cambridge Learner Corpus [2]. The ChatGPT group had slightly higher mean ranks than the Grammarly group, but the difference was not statistically significant. Both tools improved writing in similar ways, which suggests that regular use of any AI tool matters more than the choice of brand.

Ellerton notes that Grammarly focuses on syntactic errors [18], while ChatGPT gives more contextual feedback. Ahmadzade and Farahian also found that the two tools improve EFL writing in comparable ways [19]. Across studies, a clear pattern appears: Grammarly is better for narrow correction, ChatGPT for broad writing support, and they should be seen as complementary tools.

Research on AI-assisted writing tools in Uzbekistan is still in its early stages, but several Uzbek scholars have already made important contributions. Abdullayeva and Musayeva were among the first to examine the impact of ChatGPT on students' writing skills in the Uzbek context. They discussed how ChatGPT helps with generating writing prompts, providing feedback, and offering revision suggestions, and they compared it with other AI-powered writing assistants such as Grammarly and Hemingway Editor. Their study concluded that AI tools can effectively support writing development, but their integration into education must be carefully managed.

Elov, Kholikov, Abdullayeva, Mamadiyarov, and Ruzikulova investigated the effectiveness of AI chatbots in promoting informal speaking proficiency and social pragmatic skills among Uzbek learners. Although their focus was on speaking rather than writing, their findings support the broader idea that AI tools can play a meaningful role in EFL development in Uzbekistan. Similarly, Mukhiddinova and Sulaymonov examined the pedagogical potential of ChatGPT for English language learning, focusing on its contributions to grammar, vocabulary, writing, and speaking skills

3. Common categories of grammatical errors

According to Bryant et al. [16], grammatical errors include:

- Preposition errors: "I sat in the talk" → "I sat in on the talk."
- Morphological errors: "dreamed" → "dreamt."
- Determiner errors: "I like the ice cream" → "I like ice cream."
- Tense errors: "I like play basketball" → "I like playing basketball."
- Syntactic errors: "I have not the book" → "I do not have the book."
- Punctuation errors: "We met they talked and left" → "We met, they talked and left."

Grammarly is strong in detecting surface and punctuation errors, while ChatGPT often goes beyond simple corrections to rephrase whole sentences. In short, Grammarly works at the level of errors, while ChatGPT works at the level of expression.

4. Discussion

ChatGPT plays an important role in improving writing skills. It corrects errors and explains them, which makes it suitable for educational purposes. Its main advantages include detailed explanations of grammar mistakes, rewriting full paragraphs, and improving coherence. However, it may change the original meaning if the user's prompts are unclear. This means that good use of ChatGPT depends on the user's prompting skill — a skill that educators must teach alongside grammar.

Grammarly focuses on fast and accurate correction. Its main strengths are instant feedback, an easy interface, and suitability for professional writing. However, it does not explain grammar rules in detail, which limits its educational value. As a result, Grammarly can make a piece of writing better without necessarily making the writer better.

5. Conclusion

In conclusion, ChatGPT and Grammarly are both powerful AI tools for improving writing quality, but they have different strengths. ChatGPT is more effective for learning, understanding rules, and improving reading comprehension. Grammarly is more effective for fast and accurate editing. The two tools therefore complement each other rather than compete.

The best approach is therefore to use both tools together depending on the task. Combining Grammarly's precision and speed with ChatGPT's depth and explanations ensures both accuracy and learning development. Future research should focus on the long-term effects of these tools, especially in under-researched EFL contexts such as Uzbekistan, where the cultural and linguistic conditions of AI use have not yet been studied in depth.

References

1. Wu, H., Wang, W., Wan, Y., Jiao, W., & Lyu, M. (2023). ChatGPT or Grammarly? Evaluating ChatGPT on grammatical error correction benchmark. ArXiv preprint, arXiv:2303.13648.
2. Mizumoto, A., Shintani, N., Sasaki, M., & Teng, M. F. (2024). Testing the viability of ChatGPT as a companion in L2 writing accuracy assessment. *Research Methods in Applied Linguistics*, 3(2), 100116.
3. Taj, S., & Khan, M. A. (2024). Comparing Grammarly and ChatGPT for automated writing evaluation of ESL learners. *Bahria University Journal of Humanities and Social Sciences*, 7(2), 63–90.
4. Park, J. (2019). An AI-based English grammar checker vs. human raters in evaluating EFL learners' writing. *Multimedia-Assisted Language Learning*, 22(1), 112–131.
5. Link, S., Mehrzad, M., & Rahimi, M. (2022). Impact of automated writing evaluation on teacher feedback, student revision, and writing improvement. *Computer Assisted Language Learning*, 35(4), 605–634.
6. Grammarly. (2023). Grammarly: About us. Retrieved from <https://www.grammarly.com/about>
7. McMartin-Miller, C. (2014). How much feedback is enough? Instructor practices and student attitudes toward error treatment in second language writing. *Assessing Writing*, 19, 24–35.
8. Hyland, K. (1990). Providing productive feedback. *ELT Journal*, 44(4), 279–285.
9. Kasneci, E., Sessler, K., Küchemann, S., Bannert, M., Dementieva, D., Fischer, F., et al. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. *Learning and Individual Differences*, 103, 102274.
10. Kohnke, L., Moorhouse, B. L., & Zou, D. (2023). ChatGPT for language teaching and learning. *RELC Journal*, 54(2), 537–550.
11. Ouyang, L., Wu, J., Jiang, X., Almeida, D., Wainwright, C. L., Mishkin, P., et al. (2022). Training language models to follow instructions with human feedback. ArXiv preprint, arXiv:2203.02155.

12. Huang, J. (2023). ChatGPT for L2 writing feedback: Opportunities and limitations. *Computers and Education: Artificial Intelligence*, 5, 100170.
13. Mizumoto, A., & Eguchi, M. (2023). Exploring the potential of using an AI language model for automated essay scoring. *Research Methods in Applied Linguistics*, 2(2), 100050.
14. Ebadi, S., Gholami, M., & Vakili, S. (2023). Investigating the effects of using Grammarly in EFL writing: The case of articles. *Computers in the Schools*, 40(1), 85–105.
15. O'Neill, R., & Russell, A. (2019). Stop! Grammar time: University students' perceptions of the automated feedback program Grammarly. *Australasian Journal of Educational Technology*, 35(1), 42–56.
16. Bryant, C., Yuan, Z., Qorib, M. R., Cao, H., Ng, H. T., & Briscoe, T. (2022). Grammatical error correction: A survey of the state of the art. *ArXiv preprint*, arXiv:2211.05166.
17. Dizon, G., & Gayed, J. M. (2021). Examining the impact of Grammarly on the quality of mobile L2 writing. *JALT CALL Journal*, 17(2), 74–92.
18. Ellerton, W. (2023). The human and the machine: OpenAI, ChatGPT, Quillbot, Grammarly, Google, Google Docs, and humans. *Visible Language*, 57(1), 38–52.
19. Ahmadzade, M., & Farahian, M. (2025). At a crossroad: Comparing ChatGPT and Grammarly in enhancing EFL learners' use of the article 'the'. *SSRN Electronic Journal*.
20. Elov, B., Kholikov, A., Abdullayeva, I., Mamadiyarov, Z., & Ruzikulova, A. (2025). Effectiveness of AI chatbots in promoting informal speaking proficiency and social pragmatic skills in Uzbekistan: A multi-analysis study. *Computer-Assisted Language Learning Electronic Journal*, 26(1).
21. Abdullayeva, M., & Musayeva, Z. M. (2023). The impact of ChatGPT on student's writing skills: An exploration of AI-assisted writing tools. *International Conference of Education, Research and Innovation*, 1(4), 61–66.
22. Dilnoza, A., & Shakhnoza, B. (2024). Interactive language learning strategies for enhancing vocabulary acquisition. *Eurasian Journal of Academic Research*, 4(7S), 62-66.
23. Bobojonova, S. (2023). Pragmatic features of educational discourse. *Новости образования: исследование в XXI веке*, 1(9), 1321-1323.