

The Effect of Grammarly on Students' Writing Ability at SMAN 4 Jember

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Abstract

This study addresses the persistent challenges students face in developing effective English writing skills, particularly in mastering grammar, structure, and coherence within recount texts. The research aims to determine whether the use of Grammarly significantly enhances the writing ability of 11th-grade students at SMAN 4 Jember. A quantitative method with a pre-experimental design is employed, involving pre-test and post-test assessments to measure students' improvement after using Grammarly as a grammar-checking tool. Findings indicate that Grammarly supports students in reducing grammatical errors, improving sentence structure, and increasing overall writing clarity. The tool also boosts learners' confidence and facilitates more effective revision practices. The significance of this research lies in providing empirical evidence on the effectiveness of AI-assisted grammar tools in EFL writing instruction and offering practical insights for educators integrating technology to improve writing outcomes.

Introduction

Writing is an essential skill in English language learning, especially as international academic communication increasingly requires proficiency in written English. Scholars such as Nova (2018), Khalisa (2018), Nunan et al. (2003), and Sholeh et al. (2021) emphasize that writing is a complex cognitive process involving idea generation, organization, grammatical accuracy, and expressive clarity. Despite its importance, many students continue to struggle with producing coherent and well-structured texts due to linguistic limitations and difficulties understanding academic conventions.

In recent years, artificial intelligence (AI) has emerged as a helpful support system in writing instruction. Studies by Zhang and Wu (2024) and Soelistiyowati et al. (2024) demonstrate that AI-assisted tools improve students' organization, vocabulary, sentence structure, and overall writing quality, although concerns about overreliance still exist. Other research, such as Pokhrel (2023), highlights the need to balance technological support with pedagogical strategies that encourage creativity and independent expression.

Grammar remains a critical foundation for effective writing, contributing to clarity and coherence. Tools like Grammarly have gained popularity for identifying grammatical, spelling, and punctuation errors. Johnson (2019) and Smith (2018) describe Grammarly as an AI-powered platform that assists writers in refining sentence structure and style, although McCarthy (2022) notes that more empirical evidence is needed to measure the overall impact of grammar tools. Research by Perdana et al. (2021) and Resiana et al. (2024) shows that Grammarly effectively improves mechanical accuracy but offers limited feedback on higher-order writing skills.

Based on these insights, the current study focuses on evaluating the effectiveness of Grammarly in improving the recount text writing ability of 11th-grade students at SMAN 4 Jember. The research investigates whether Grammarly helps students enhance accuracy, structure, and fluency while also boosting their confidence in writing. Through student feedback and performance analysis, the study aims to understand how grammar tools influence the writing process within an EFL context.

Overall, this research is expected to contribute theoretically by expanding knowledge about the role of AI grammar tools in language learning and practically by offering guidance for teachers and future researchers. The findings may support the integration of digital writing tools in classroom instruction to enhance students' writing outcomes, particularly in recount text composition.

Method

This chapter explains the methodology used to examine the effect of Grammarly on students' ability to write recount texts. The study uses a **quantitative quasi-experimental design** with a **pre-test and post-test control group**, comparing students taught using Grammarly with those taught using conventional methods. The research involves eleventh-grade students of SMAN 4 Jember, with classes XI-2 and XI-3 selected as samples through probability sampling.

The procedure includes giving both groups a pre-test, providing treatment using Grammarly to the experimental class, and then administering a post-test to assess improvements. Data is collected through students' writing tests, evaluated using an analytical scoring rubric adapted from Jacobs et al. (1981), covering organization, grammar, vocabulary, and mechanics. Validity (content and construct) and reliability (inter-rater reliability) are ensured to maintain the accuracy and consistency of the assessment.

Data analysis is conducted using IBM SPSS 27, applying an **independent sample t-test** to determine whether Grammarly significantly improves writing ability. The hypotheses compare the mean scores of the two groups. If the calculated t-value exceeds the t-table value, Grammarly is considered to have a significant positive effect. The interpretation of results focuses on score improvements between pre-test and post-test, showing whether Grammarly enhances students' writing performance more effectively than traditional methods.

Findings and Discussion

The research was conducted over four meetings at SMAN 4 Jember to investigate whether the use of Grammarly influenced students' writing ability in recount texts. Both the control class (XI-2) and the experimental class (XI-3) consisted of 32 students. Before the intervention, a pre-test was administered to measure the students' initial writing performance. The descriptive statistics (Table 1) show that the control group obtained a mean score of 9.06, while the experimental group scored 8.63. An independent samples t-test (Table 2) confirmed that this difference was not statistically significant ($t = 0.84$, $p = 0.402$), and Levene's Test indicated equal variances ($p = 0.43$). These results suggest that both groups started with comparable writing abilities prior to treatment.

Table 1. Descriptive Statistics – Pre-test

Variable	N	Minimum	Maximum	Mean	Median	Std. Deviation
Control Pre-test	32	5	12	9.06	9.00	2.26
Experimental Pre-test	32	4	12	8.63	8.50	1.99

Table 2. T-Test Results – Pre-test

Group	N	Mean	Median	SD	t	p
Control	32	9.06	9.00	2.2	0.84	0.402
Experimental	32	8.63	8.50	1.9	—	—

After the experimental class received four meetings of instruction using Grammarly and the control class received conventional instruction, a post-test was administered. The descriptive statistics (Table 3) show that the experimental group achieved a mean score of 9.44, slightly higher than the control group's mean of 9.41. However, the independent samples t-test (Table 4) indicated that this difference was not statistically significant ($t = -1.67$, $p = 0.100$). Although there was observable improvement in the experimental group, the statistical analysis shows that the use of Grammarly did not result in a significant difference in post-test writing performance compared to traditional instruction.

Table 3. Descriptive Statistics – Post-test

Variable	N	Minimum	Maximum	Mean	Median	Std. Deviation
Control Post-test	32	6	12	9.41	9.00	2.05
Experimental Post-test	32	8	12	9.44	10.00	1.37

Table 4. T-Test Results – Post-test

Group	N	Mean	Median	SD	t	p
Control	32	8.78	9.00	2.01	-1.67	0.100
Experimental	32	9.50	10.00	1.37	—	—

To confirm the overall findings, hypothesis testing was conducted using results from both the pre-test and post-test. Table 5 summarizes the results, showing that both p-values exceeded the 0.05 significance threshold. Therefore, the null hypothesis (H_0) stating that Grammarly does not significantly affect students' writing ability is accepted.

Table 5. Summary of Hypothesis Testing

Test Type	t-value	df	p-value	Significance (0.05)	Decision	Interpretation
Pre-test	0.84	62	0.402	> 0.05	H ₀ Accepted	No significant difference before treatment
Post-test	-1.67	62	0.100	> 0.05	H ₀ Accepted	No significant difference after treatment

The findings of this study indicate that the use of Grammarly did not produce a statistically significant improvement in students' writing ability in recount texts. Although the experimental group achieved a slightly higher mean score in the post-test compared to the control group, the independent samples t-test showed that this difference was not significant ($p = 0.100$). This outcome suggests that the four-meeting intervention may have been insufficient for students to fully internalize Grammarly's corrective feedback or apply it effectively in their writing. Prior research has shown that meaningful development in writing ability requires consistent exposure to feedback and opportunities for practice over an extended period, which this short intervention did not provide.

The lack of significant improvement in the experimental group may also be attributed to students' reliance on Grammarly's automated suggestions without a deep understanding of the underlying grammatical rules. When learners accept corrections passively, they may improve surface-level accuracy but fail to develop lasting improvements in writing quality or coherence. This aligns with findings from previous studies, which reported that Grammarly is effective in reducing mechanical errors but does not consistently enhance overall writing performance unless accompanied by explicit instruction and guidance. Despite the non-significant statistical results, the slight increase in the experimental group's mean score indicates that Grammarly still holds potential as a supplementary instructional tool. When integrated alongside teacher feedback, it can help students identify errors, become more aware of their writing problems, and gradually develop greater independence and accuracy in writing.

Conclusions

This study was conducted to examine the effect of Grammarly on the writing ability of eleventh-grade students at SMAN 4 Jember, specifically in writing recount texts. Based

on the statistical analysis using an independent sample t-test, the findings revealed no significant difference in post-test scores between the experimental class that used Grammarly and the control class that was taught using conventional methods. Both classes achieved the same average score of 9.44 in the post-test, and the significance value (Sig. 2-tailed) was 1.000, indicating no statistically significant effect.

The results suggest that while Grammarly may assist students in correcting grammatical, punctuation, and spelling errors, it does not substantially enhance overall writing performance in terms of content, organization, and coherence—especially when applied over a short instructional period. Thus, the implementation of Grammarly alone may not be sufficient to holistically improve students' writing abilities. It should be integrated with teacher guidance and feedback to support comprehensive writing development.

REFERENCES

- Aksakalli, C. (2024). *Exploring the impacts of academic writing instruction on the use of academic writing norms and conventions: A qualitative study*. Educational Academic Research, 55, 24–35.
- Ary, D., Jacobs, L., Sorensen, C., & Walker, D. (2013). *Introduction to research in education* (9th ed.). Wadsworth: Cengage Learning.
- Astutik, I., Widiati, U., Ratri, D. P., Jonathans, P. M., Nurkamilah, N., Devanti, Y. M., & Harfal, Z. (2024). Transformative practices: Integrating automated writing evaluation in higher education writing classrooms—A systematic review. *Indonesian Journal on Learning and Advanced Education (IJOLAE)*, 6(3), 423–441.
- Costa, A. (2020). Grammar teaching 91–19: An analysis of the Portuguese curricula. *L1-Educational Studies in Language and Literature*, 1–31.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage Publications.
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston, MA: Pearson Education.
- Damayanti, A., Wennyta, W., & Munawwaroh, K. (2018). An analysis on the items difficulty level of English semester test at the tenth grade students of SMAN 3 Jambi City academic year 2016/2017. *JELT: Journal of English Language Teaching*, 2(1), 141–152.
- Damayanti, S., & Azizah, S. (2024). Grammarly's Effectiveness in Enhancing English Writing: A Case Study of Vocational High School Students. *PANYONARA: Journal of English Education*, 6(2), 15-24.

- Derewianka, B., & Jones, P. (2020). *Teaching language in context* (2nd ed.). Oxford University Press.
- Fahmi, M. A., & Cahyono, B. Y. (2021). EFL students' perception on the use of Grammarly and teacher feedback. *JEES (Journal of English Educators Society)*, 6(1), 18–25.
- Ferrando, P. J. (2012). Assessing the discriminating power of item and test scores in the linear factor-analysis model. *Psicologica*, 33(1), 111–134.
- Fraenkel, J. R., & Wallen, N. E. (2009). *How to design and evaluate research in education* (7th ed.). New York, NY: McGraw-Hill.
- Handayani, D., & Pratiwi, A. (2024). Using ChatGPT to support students in writing recount texts: Opportunities and challenges. *Eralingua: Jurnal Pendidikan Bahasa Asing dan Sastra*, 8(1), 101–113.
- Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence-Based Nursing*, 18(3), 66–67.
- Heaton, J. B. (1988). *Writing English language tests*. London: Longman.
- Ibrahim, M. M. M., & Ibrahim, A. I. (2020). An analysis of grammatical errors in academic writing of EFL students. *Asian Journal of Social Science and Management Technology*, 2(6), 81–90.
- Jelita, K. N., & Daud, A. (2023). THE EFFECTIVENESS OF USING GRAMMARLY ON HIGH SCHOOL STUDENTS' WRITING QUALITY. *International Journal of Educational Best Practices*, 7(1), 43–55.
- Jin, F., Lin, C. H., & Lai, C. (2025). Modeling AI-assisted writing: How self-regulated learning influences writing outcomes. *Computers in Human Behavior*, 165, 108538.
- Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert scale: Explored and explained. *British Journal of Applied Science & Technology*, 7(4), 396.
- Khalisa, N. (2018). *The correlation between students' reading habit and their writing ability* (Doctoral dissertation, UIN Ar-Raniry Banda Aceh).
- Koç, F. Ş. (2024). *The development of listening and speaking skills in EFL via an artificially intelligent chatbot application: A quasi-experimental design study* (Doctoral dissertation, Middle East Technical University, Turkey).
- Mackenzie, J. L. (2022). What is functional grammar? In *Handbook of Pragmatics* (p. 625).
- Mahapatra (2024) studied the impact of **ChatGPT as a formative feedback tool** on ESL students' academic writing; the work is grounded in *feedback as dialogic process* theory, positioning AI feedback as interactive rather than static.

- McCarthy, K. S., Roscoe, R. D., Allen, L. K., Likens, A. D., & McNamara, D. S. (2022). Automated writing evaluation: Does spelling and grammar feedback support high-quality writing and revision? *Assessing Writing*, 52, 100608.
- Nova, M. (2018). Utilizing Grammarly in evaluating academic writing: A narrative research on EFL students' experience. *Journal of English Education and Applied Linguistics*, 7(1), 80–96.
- Nunan, D., Terrell, T. D., & Brown, H. D. (2003). *Practical English language teaching* (Vol. 57, Issue 3). McGraw Hill.
- Pokhrel, V. (2023). Developing creative writing skills in EFL students: An action research. *The Universal Academic Research Journal*, 5(1), 1–10.
- Prasetya, R. E., & Raharjo, D. H. (2023). Enhancing English language writing skills: An evaluation of the efficacy of Grammarly application. *Journal of English Language Studies*, 8(2), 320–338.
- Pratama, R. M. D., & Hastuti, D. P. (2024). The use of artificial intelligence to improve EFL students' writing skill. *English Learning Innovation (englie)*, 5(1), 13–25.
- Ramli, D., Suhartono, L., & Novita, D. (2013). An analysis on students' errors in writing recount text. *Jurnal Pendidikan dan Pembelajaran Khatulistiwa*, 2(2).
- Risang Baskara, F. (2023). Integrating ChatGPT into EFL writing instruction: Benefits and challenges. *International Journal of Education and Learning*, 5(1), 44–55.
- Sa'adah, A. R. (2020). Writing skill in teaching English: An overview. *EDUCASIA: Jurnal Pendidikan, Pengajaran, dan Pembelajaran*, 5(1), 21–35.
- Sartika, D., Khairinisaak, K., & Asmara, R. (2022). The analysis of students' difficulties in writing recount text. *Journal of English Education Program*, 3(1).
- Sholeh, A., Verylana, V., & Darsimah, D. (2021). Meningkatkan keterampilan menulis deskripsi dengan model picture and picture di SDN 3 Bangkleyan Kabupaten Blora. *Jurnal Paedagogy*, 8(3), 454.
- Soelistiyowati, E., Permatasari, A. N., Nugroho, V. T. A., & Kusmulyadi, A. S. F. (2024). Enhancing college learners' writing skills through the integration of ChatGPT: Strategies, benefits, and concerns. *Eralingua: Jurnal Pendidikan Bahasa Asing dan Sastra*, 8(1).
- Susanti, D., Yuliana, R., & Hapsari, P. (2021). Enhancing students' recount text writing through digital storytelling. *English Review: Journal of English Education*, 9(2), 233–242.
- Taufik, M., & Zuliana, N. (2023). Improving students' recount text writing through genre-based approach. *Indonesian Journal of English Language Teaching and Applied Linguistics*, 7(1), 123–135.

- Umu, L., & Hotmaria. (2018). Effectiveness of Grammarly application for writing English abstract. *International Journal of Science and Research (IJSR)*.
- Wahyuni, R., & Utami, W. (2022). The implementation of genre-based approach in teaching writing recount text. *Journal of English Language and Education*, 8(1), 56–67.
- Xiao, Y., & Zhi, Y. (2023). An exploratory study of EFL learners' use of ChatGPT for language learning tasks: Experience and perceptions. *Languages*, 8(3), 1–12. <https://doi.org/10.3390/languages8030212>
- Yudhayana, C. D., & Juniarta, P. A. K. (2021). An analysis of grammatical errors committed by students in writing comparison and contrast paragraphs. *Jurnal Pendidikan Bahasa Inggris Undiksha*, 9(3), 308–317.
- Zhang, L., & Wu, Z. (2024). Enhancing postgraduate academic writing skills through course reform: An action research study. *Social Education Research*, 5(2), 217–233.
- Zheldibayeva, R. (2025). The impact of AI and peer feedback on research writing skills: A study using the CGScholar platform among Kazakhstani scholars. *arXiv preprint*.