

## PERCEPTION OF GRAMMARLY AMONG PRE-SERVICE TEACHERS IN SCIENTIFIC WRITING CLASS

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### Abstract

Media plays a crucial role in facilitating effective learning by capturing and maintaining student attention. Grammarly, a readily accessible tool, can be particularly beneficial for students, especially in developing their writing skills. This study, therefore, aimed to investigate students' perceptions regarding the utilization of Grammarly in writing instruction. We employed a mixed-methods research design, collecting data through both questionnaires and interviews. The questionnaires allowed for a broad quantitative overview of student opinions, while the follow-up interviews provided richer, qualitative insights into their experiences, challenges, and perceived benefits of using Grammarly. A total of 23 students enrolled in the Scientific Writing course at a private university in East Jakarta participated in the questionnaire survey.

**Keywords:** Pre-service teacher; Grammarly; Scientific Writing; perception

### INTRODUCTION

Artificial intelligence (AI) is a system that mimics human-like intelligence through its ability to learn, adapt, solve problems, make decisions, and comprehend human language. As technology advances, AI is increasingly popular and applied across diverse sectors, including education. In the educational realm, AI technology can significantly enhance the effectiveness and efficiency of teaching and learning by offering a more personalized and adaptive experience for each student. One notable application of AI in education is through adaptive learning systems. These systems analyze student data on abilities and learning needs to deliver tailored content. A technology that has garnered significant attention in this context is Grammarly, an AI-based language model capable of automatically generating text using a data-driven approach (Wang, 2023).

Lecturers and students have increasingly adopted ICT-based methods in their writing activities, including various language learning applications supported by computers and mobile devices. Nurhayati (2022), for instance, found that using online proofreading tools was beneficial in helping her students write coherently and cohesively, thereby preserving the integrity of their writing. While the provided reference by Faisal and Carabella (2023) focuses on Grammarly and academic writing, it is important to note that other educators have successfully integrated social media within mobile applications to foster students' idea development.

Grammarly, founded in 2009 by Max Lytvyn and Alex Shevchenko, was designed to support individuals throughout their writing process. By 2022, it reportedly offered a real-time interface, making instant feedback accessible to users. The application can be downloaded for both Windows and Mac operating systems and integrates seamlessly with various websites, including Google Docs, Medium, and Twitter, through its convenient browser extensions. As highlighted by Perdana et.al (2019), Grammarly operates through two primary versions. The free version provides essential assistance with grammar, punctuation, spelling, sentence structure, and general style. For more comprehensive support, the premium version includes checks for 150 additional grammar points, plagiarism detection, options to specify document types for tailored feedback, and tools for vocabulary enrichment.

Considering its strengths and weaknesses, as briefly mentioned earlier, higher education students grasp the practical benefits of Grammarly. This study aims to explore how sixth-semester students in the English Education Study Program at a private university in East Jakarta perceive their educational experience regarding Grammarly's use in scientific writing. To achieve this objective, this study aims to explore the perceptions of sixth-semester English Language Education students regarding their use of Grammarly as an automatic grammar checker in the scientific writing process.

## METHOD

This study employed a mixed-methods design. As Invankova & Creswell (2009) noted, an explanatory mixed-methods strategy involves "First conducting analysis on quantitative data, followed by qualitative data analysis in a subsequent phase that builds upon the initial quantitative findings." The participants were 23 pre-service teachers enrolled in the Scientific Writing course at a private university in East Jakarta, all of whom completed the questionnaire survey. From this group, ten students were subsequently interviewed to gain deeper insights.

Data was collected using a closed-ended questionnaire and semi-structured interviews. The survey, distributed via a Google Form link on WhatsApp, gathered initial quantitative data (item scores/responses) from the English education students. This data was then organized into a frequency distribution table, and descriptive statistics, including the mean, median, mode, and standard deviation, were calculated. Following this, the researcher conducted interviews with the ten selected students. The interview data served to bolster and elucidate the questionnaire findings, providing rich qualitative context. Finally, after gathering all data, the researcher interpreted the analytical outcomes, categorizing and reviewing the information based on specific themes.

## RESULTS AND DISCUSSION

This section presents the key findings of the study, followed by a comprehensive discussion of their implications. The results, derived from the data collected, will be detailed and then interpreted in the context of the initial research questions and relevant literature, highlighting both significant observations and unexpected outcomes

### Result

To understand EFL students' views on using Grammarly for writing improvement, the study employed a 10-question survey. This survey assessed perceptions through a series of statements, with students indicating their level of agreement or disagreement using options. The collected data was then analyzed by calculating the percentage of responses for each option, the results of which are presented in the table below.

Table 1. Students' Opinions on the Use of Grammarly

Statement	SA (%)	A (%)	D (%)	SD (%)
I use Grammarly regularly to write or edit text, ensuring my scientific manuscripts are clear and precise	34,8%	56.5%	0%	8,7%
I use Grammarly at least a few times a week, which helps maintain consistency in my writing style.	21,7%	69,6%	4,3%	4,3%
Grammarly supports me in improving various types of scientific writing, including assignments, research papers, and articles.	39.1%	60,9%	0%	0%

I find Grammarly very helpful in improving grammar and sentence structure, essential for the clarity and readability of scientific documents.	56,5%	43,5%	0%	0%
Using Grammarly has helped me improve my overall writing skills, making my scientific writing more professional and polished.	39,1%	60,9%	0%	0%
After using Grammarly, I feel more confident in my writing, knowing that my work is free of basic errors and well-structured.	39,1%	56,5%	4,3%	0%
Grammarly has enhanced my understanding of grammar rules, which is crucial for adhering to the standards of scientific writing.	30,4%	69,6%	0%	0%
The feature of Grammarly that I find most useful is its grammar error checking, which ensures my scientific texts are error-free and meet the required academic standards.	45,5%	54,5%	0%	0%
I find Grammarly easy to use, making it a convenient tool for enhancing my scientific writing.	45,5	54,4%	0%	0%
I would recommend Grammarly to a friend or co-worker because of the benefits I perceive, such as improved grammar, sentence structure, and overall writing quality, which are vital in scientific writing.	47,8%	52,2%	0%	0%

Note: SA= Strongly Agree; A=Agree; D=Disagree; SD=Strongly Disagree

## Discussion

The perception analysis of Grammarly usage covered several key factors, including user satisfaction, the tool's perceived effectiveness in improving writing skills, users' feelings about the quality of the advice provided, and the extent to which users felt the tool helped them achieve their writing goals. These perceptions were typically gathered through surveys and interviews.

However, a key finding revealed that participants applied Grammarly's suggestions conditionally rather than adopting them without reservation. This conditional acceptance stemmed from students' understanding that not all recommendations from Grammarly fully aligned with the established rules found in English handbooks or the specific contextual demands of scientific writing. Consequently, users did not feel it was always feasible to apply Grammarly's guidance in its entirety.

### *Grammarly as a Writing Assistant*

A significant majority of students, 91.3%, agreed that they would regularly use Grammarly to write or edit texts, perceiving it as a valuable tool for ensuring the clarity and precision of their scientific manuscripts. It is shown in Figure 1.

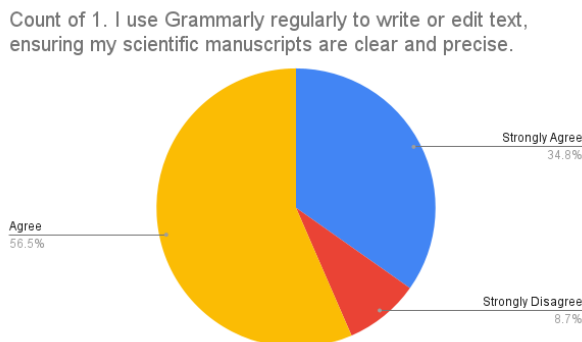


Figure 1. I use Grammarly regularly to write or edit text, ensuring my scientific manuscripts are clear and precise

For question number two, 91.3% of students reported using Grammarly at least a few times a week, which they found helped maintain consistency in their writing style. Regularly using Grammarly can significantly enhance the quality and consistency of students' writing, potentially leading to improved grades, increased confidence, and time savings. Research has consistently shown that regular use of writing tools like Grammarly for drafting and editing can substantially improve writing quality. This helps ensure that scientific manuscripts remain clear and precise, reducing grammatical errors and promoting consistency in language use.

It also indicates they would regularly use Grammarly for writing and editing, highlights the perceived efficacy of the tool in enhancing the quality of their scientific manuscripts. This significant majority suggests that students view Grammarly as an indispensable aid, particularly for ensuring the clarity and precision crucial for academic discourse. Their willingness to integrate it into their routine writing process underscores its practical value in supporting the development of well-structured and grammatically sound scientific texts. This finding resonates with broader research, including the work of Zinkevich and Ledeneva (2021), who similarly emphasize Grammarly's role in improving students' academic writing skills.

The finding that 81% of respondents use Grammarly at least a few times a week, specifically citing its aid in maintaining consistency in their writing style, underscores the practical utility and perceived effectiveness of the tool in regular writing practices ( Figure 2). This high frequency of use suggests that Grammarly has become an integral part of their writing workflow, particularly for ensuring stylistic uniformity across their texts.

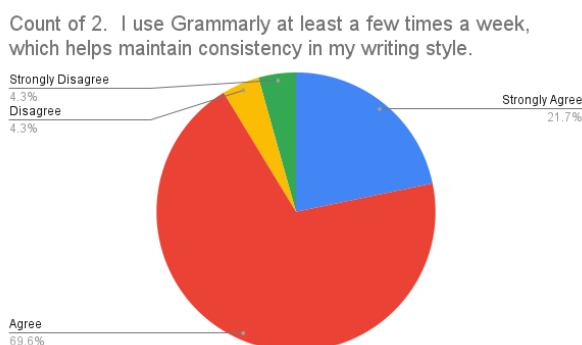


Figure 2. I use Grammarly at least a few times a week, which helps maintain consistency in my writing style.

Consistency in writing, encompassing elements like spelling, punctuation, capitalization, and formatting, is crucial for clarity and professionalism, especially in academic or scientific contexts. The strong endorsement from the majority of users indicates that Grammarly successfully

addresses this specific need, reinforcing its role as a valuable assistant in producing polished and coherent written work. This aligns with findings from studies such as Borna, Mohammadi, and Nia (2024), who also investigated the positive effects of AI writing assistance tools like Grammarly on writing performance.

For Question 3, all students (100%) agreed that Grammarly supports them in improving various types of scientific writing, including assignments, research papers, and articles. It is shown in Figure 3 below.

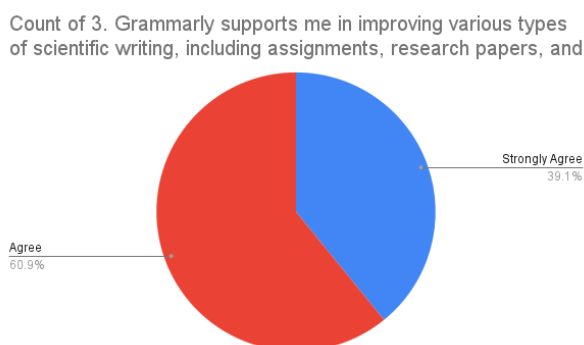


Figure 3. Grammarly supports me in improving various types of scientific writing, including assignments, research papers, and articles

This study found that Grammarly assists in argument composition, particularly in terms of grammar revision. Grammarly not only helps students identify and correct errors in their writing but also guides them toward becoming self-regulated learners (Pujiwati, 2018).

In Figure 4, all students agreed that Grammarly is highly beneficial for improving grammar and sentence structure. This widespread agreement underscores Grammarly's significant value in enhancing the clarity, readability, and overall quality of scientific documents and communication.

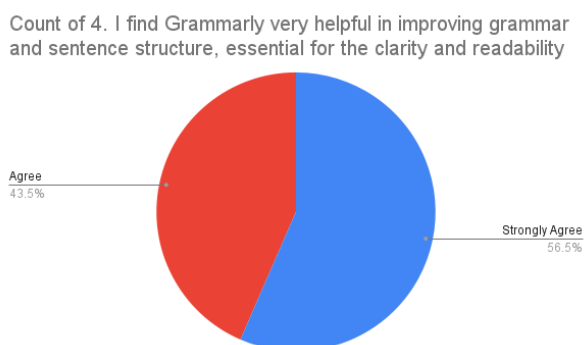


Figure 4. I find Grammarly very helpful in improving grammar and sentence structure, essential for the clarity and readability of scientific documents.

All student respondents agreed that using Grammarly significantly helped them improve their overall writing skills, contributing to more professional and polished scientific manuscripts. This widespread positive perception underscores that incorporating Grammarly into the scientific writing workflow can substantially enhance writing quality and professionalism, ultimately ensuring clarity, conciseness, and accuracy in academic work.

All student respondents agreed that using Grammarly significantly helped them improve their overall writing skills, contributing to more professional and polished scientific manuscripts. This widespread positive perception underscores that incorporating digital technology included in

popular culture (Wijirahayu, et al., 2024) into the scientific writing workflow can substantially enhance writing quality and professionalism, ultimately ensuring clarity, conciseness, and accuracy in academic work.

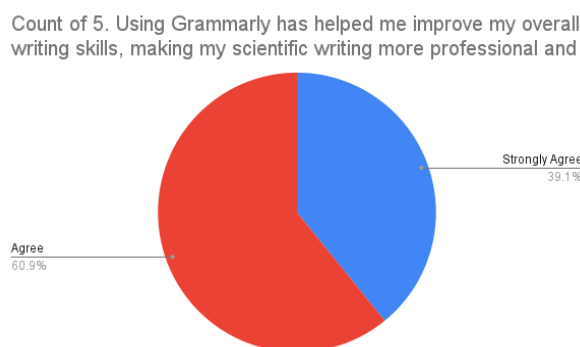


Figure 5. Using Grammarly has helped me improve my overall writing skills, making my scientific writing more professional and polished.

In Figure 5, 95.6% of respondents agreed that using Grammarly significantly increased their confidence in writing, as they felt their work was free of basic errors and well-structured. This widespread agreement suggests that incorporating Grammarly into the writing workflow can substantially enhance the quality and professionalism of their output, ultimately ensuring clarity, conciseness, and accuracy. Furthermore, the introduction of Grammarly into the teaching process appears to be a suitable aid for students to overcome writing challenges in English, such as those encountered in assignments. This finding aligns with research by Utami & Apsari (2020) and Ambrawati (2021).

### ***Confidence and Skill in Scientific Writing***

Confidence and skill are intrinsically linked in the realm of scientific writing, forming the bedrock of effective communication. A strong command of grammar, syntax, and scientific conventions directly contributes to the development of robust writing skills, enabling researchers to articulate complex ideas with precision and clarity. This mastery, in turn, cultivates a profound sense of confidence, empowering authors to present their findings, methodologies, and arguments with authority. When writers are confident in their ability to produce error-free and well-structured texts, they are better equipped to engage critically with their work, withstand peer review, and ultimately contribute meaningfully to the scientific discourse without the hindrance of linguistic uncertainty.

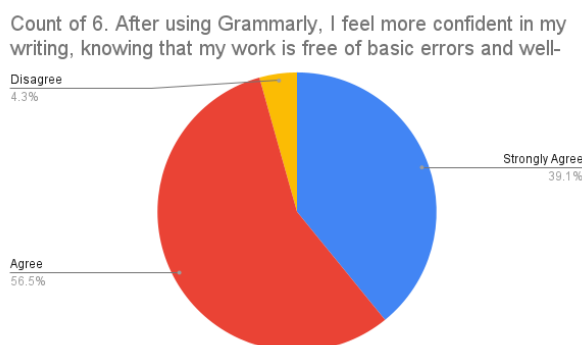


Figure 6. After using Grammarly, I feel more confident in my writing, knowing that my work is free of basic errors and well-structured.



All respondents in Figure 6 agreed that Grammarly improved their understanding of grammar rules, which are essential for adhering to scientific writing standards. The observed use of Grammarly by ten participants, who used it to aid their argument writing in this study, reinforces its value. As noted by Nova (2018), Grammarly provides automatic feedback and is considered the best tool available at this time.

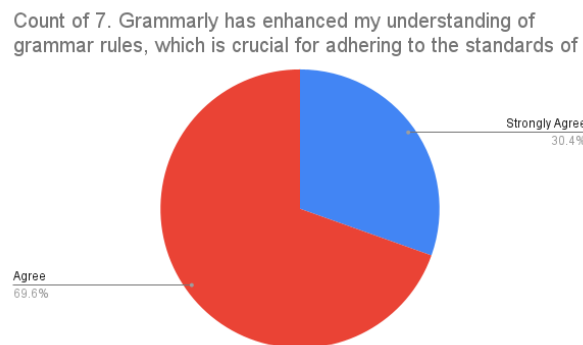


Figure 7. Grammarly has enhanced my understanding of grammar rules, which is crucial for adhering to the standards of scientific writing.

The respondents in Figure 7 universally agreed that Grammarly's grammar error checking was its most valuable feature, as it helped them produce error-free scientific texts that met academic requirements. This point is supported by Koltovskaia (2020) and Fitria (2021). Moreover, Barrot (2020) characterizes Grammarly as a user-friendly application.

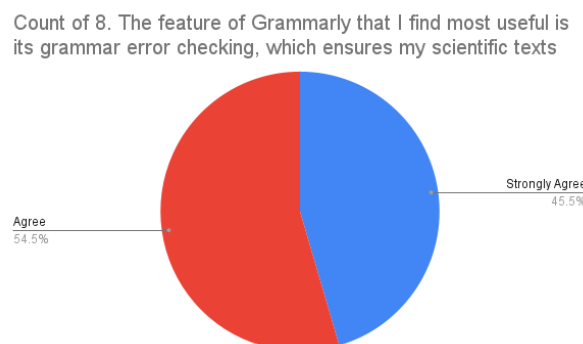


Figure 8. The feature of Grammarly that I find most useful is its grammar error checking, which ensures my scientific texts are error-free and meet the required academic standards.

Figure 8 shown that the respondents universally acknowledged Grammarly's ease of use, establishing it as a straightforward tool for improving scientific writing. This ease of use echoes the value placed on web-based language learning platforms like Purdue Online Writing Labs, which are highly regarded for teaching relevant academic phrases and clauses, as discussed by Meysarah (2018) and Walisundara (2020).

### ***Writing Tool and the Quality***

In contemporary academic and professional spheres, the demand for clear, concise, and error-free writing is paramount, especially within scientific communication where precision directly impacts understanding and credibility. The advent and widespread adoption of digital writing tools have significantly reshaped the writing process, offering new avenues for enhancing textual quality and efficiency.

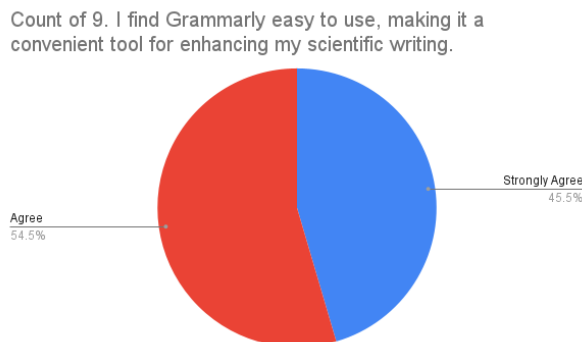
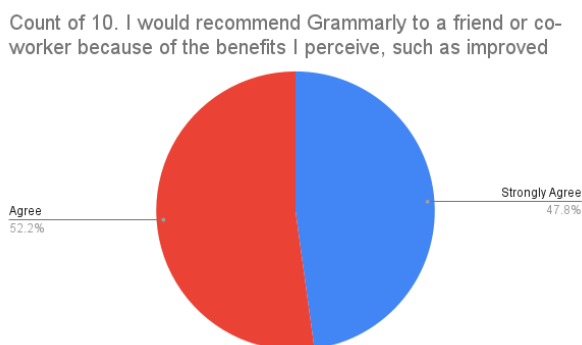


Figure 9. I find Grammarly easy to use, making it a convenient tool for enhancing my scientific writing.

Every respondent in Figure 9 indicated they would recommend Grammarly to peers, citing the significant improvements they observed in their grammar, sentence structure, and overall writing quality. These improvements are vital for scientific communication because clarity and precision are paramount in academic discourse. Well-structured sentences and accurate grammar ensure that complex scientific ideas are conveyed without ambiguity, preventing misinterpretation of data, methodologies, or conclusions. Ultimately, high-quality writing enhances the credibility of the research and its authors, making the work more accessible and impactful within the scientific community especially with the assistant of technology like Quizizz (Widyasari & Wijirahayu, 2025).

This study explores the perceived efficacy of such tools, particularly Grammarly, in improving various facets of writing, ranging from fundamental grammar and sentence structure to overall textual professionalism. By examining user experiences and aligning them with existing research, this discussion highlights how these technological aids not only elevate the quality of written output but also address common challenges faced by writers, including reducing anxiety in the revision process.



**Figure 10.** I would recommend Grammarly to a friend or co-worker because of the benefits I perceive, such as improved grammar, sentence structure, and overall writing quality, which are vital in scientific writing.

In Figure 10., every respondent confirmed they would recommend Grammarly to friends or colleagues. This endorsement stems from the tool's effectiveness in refining text, leading to marked improvements in grammar, sentence structure, and the overall quality of writing—qualities indispensable in scientific contexts. Additionally, Grammarly's role as a supportive companion during revision significantly reduces writers' anxiety (Wijirahayu, Perdhana & Syaepurohman, 2024).



## CONCLUSION

Grammarly can be an indispensable AI-powered tool that provides users with instant feedback on English grammar. Generally, users find this tool highly beneficial when completing their writing tasks. For future researchers, a key recommendation is to conduct more in-depth studies on Grammarly's usage, particularly those focusing on specific research questions or employing mixed methods, as this area has not yet been thoroughly explored.

The positive impact of Grammarly on writing skills often manifests in several ways. Firstly, students frequently report improved writing quality, noting that Grammarly helps them correct grammatical errors and refine sentence structure. Secondly, its ease of use is a significant factor, as most students find Grammarly user-friendly and intuitive, allowing them to concentrate on content rather than grammar mistakes. Thirdly, a notable portion of students indicate enhanced learnability, suggesting that Grammarly aids their understanding of grammar rules and fosters their grasp of effective and correct writing practices. Furthermore, the pre-service teachers in this study perceive Grammarly as a tool that boosts their efficiency in writing, accelerating the completion of assignments. Lastly, the use of Grammarly often leads to increased confidence in students' writing abilities, as they are able to produce higher-quality texts with fewer concerns about grammatical accuracy.

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