

# STUDENTS' PERSPECTIVES ON USING GRAMMAR CHECKERS IN ACADEMIC WRITING

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## ABSTRACT

Research article writing is essential for academics to disseminate their work and develop their careers. However, writing in a foreign language (FL) is a complex process that entails more than just conveying ideas, involving various procedures to complete the writing task. In an effort to improve students' writing skills, technology-based tools such as grammar checkers have developed rapidly. Thus, this study aims to investigate students' perspectives on the use of grammar checkers in improving their writing skills. The results showed that grammar checkers were generally perceived as practical and useful tools in improving their writing quality, efficiency, and confidence. Most participants felt that grammar checkers helped them in understanding grammar rules and made their writing better. However, despite general satisfaction, some participants still preferred personal judgement in assessing the accuracy of their writing, suggesting that there is still a need to improve the reliability and accuracy of grammar checkers.

**Keywords:** Grammar checkers, academic writing, students' perspectives

## INTRODUCTION

Writing research articles or papers is crucial for all academics to publish their work in their careers (Coles, 1993, as cited in Grech, 2017) but it is a complex process. It requires more or less time to find ideas and put them into writing (Harries dan Cunningham, 1994 as cited in Cekiso, 2016). According to Nunan (1999) in Cekiso (2016), writing clearly and coherently is challenging, especially in a newly learned language. In writing, cohesion is about the relationship between words and sentences (Richards et al., 1985 as cited in Ahmad et al., 2019). Further, students often struggle with grammar, spelling, connecting ideas, and drawing connections between paragraphs (Van Schalkwyk and Van Der Walt, 2009 as cited in Cekiso, 2016). Therefore, it is important to understand the problems that students face in writing, so that we can help them create good and clear writing.

One technology-based tool used to help EFL/ESL learners enhance their language proficiency is artificial intelligence. Several AI-based tools have been developed to assist EFL/ESL learners improve their writing skills. KAKU, Quillbot, Wordtune, and Grammarly are examples of such programs (Marghany Mahmoud Marghany, 2023). In this technological age, computational linguistics focused on language technology, mainly modeling human languages. Computational linguistics is an interdisciplinary field that combines linguistics and computer science to study the computational aspects of human natural language. The grammar checker is the most critical application of this type since it verifies the input sentence and substantially impacts on other NLP applications (S. Bhirud et al., 2017).

Potter & Fuller (2008) investigated the influence of grammar checkers on the writing experience of an individual student. The finding showed they can help students write better. Students need to understand grammar because they use it on their computers. Cavaleri & Dianati (2016) explored how popular online grammar checker Grammarly was perceived by college students. Grammarly was universally regarded as a valuable and convenient grammar checker by students. Overall, students reported that Grammarly was helpful and easy to use. Most of them reported that the suggestions from Grammarly made their papers better, and some felt that Grammarly helped them get higher grades. The survey results also showed that Grammarly can help students in the long run.

Grammarly can make students more aware that correction is very important in writing and also tell them the types of errors they need to pay attention to. Qassemzadeh & Soleimani (2016) indicated that teacher input and the use of Grammarly software for feedback had a statistically significant effect on how well Iranian EFL university students. Fahmi & Cahyono (2021) also examined Indonesian L2 students' opinions of Grammarly use and teacher feedback. Based on the data collected, most students like using Grammarly and get feedback from teachers. They stated that Grammarly is easy to use and very convenient. This is also because Grammarly has good features and is easy to use. Findings from the study also showed that almost all students, whether high or low in English proficiency, enjoyed using Grammarly and responded positively to all questions in the questionnaire. Moreover, Ebadi et al. (2023) demonstrated that Grammarly affected and improved their capacity to use articles.

Several research on the impact of Grammarly and other online grammar checker systems on students' writing skills have been undertaken in previous study. In contrast, a recent study investigated students' perspectives regarding using online grammar checkers to improve their writing skills. The research reported in this paper focused on the impact and efficacy of Grammarly and related programs in improving students' grammar, writing skills, and attitudes in a variety of academic level and background. Therefore, the research question addressed is "How are students' perspectives on online grammar checkers in academic writing?"

## METHOD

To explore students' perspectives of using online grammar checkers in academic writing, the researcher used a mixed-method approach. It is an inquiry methodology that necessitates the collecting of both quantitative and qualitative data, as well as combining them in a way that incorporates the use of multiple methodologies depending on philosophical frameworks (Creswell & David Creswell, 2018). This approach offers a comprehensive insight into the students' use of an online grammar checker to increase their writing skills, by using both quantitative and qualitative data collection methods. The survey design was used to discuss students' perspectives on using grammar checkers when writing their academic papers. Later, the data collected was explained in more detail. Meanwhile, the qualitative method was used for answers to the questionnaire that needed deeper clarification.

The study was conducted from Wednesday 27 March 2024 to 20 June 2024 by involving fifty participants from different levels such as undergraduate, master, and doctoral program and from several universities to get various perspectives regarding the use of online grammar checkers as a tool that helps them in academic writing. Fifty participants (37 women and 13 men, including 35 undergraduates, 7 master's students, and 8 doctoral students) completed an online questionnaire. Ten of these participants were subsequently interviewed.

The questionnaire contained 15 four-point Likert scale questions, ranging from Strongly Disagree, Disagree, Agree, to Strongly Agree. To gain deeper insights into students' perspectives, interviews were conducted to clarify responses from questionnaire. Students were invited to discuss their use of grammar checkers in academic writing, sharing their experiences and thoughts. These 15-minute-interviews, comprising 12 structured questions designed to explore student ideas and opinions in more detail, were conducted via video call.

After collecting data from the pilot study participants who completed the questionnaire, the researcher analyzed the data using SPSS. SPSS was used to validate the question items generated by O'Neill & Russell (2019). The questionnaires distributed to participants also were examined using simple statistics, specifically averages. This data was analyzed by doing descriptive analysis.

Following the transcription of the interviews, the next phase of the research is a meticulous and methodical analysis of the transcriptions. This study often comprises thematically coding and categorizing the data. Boyatzis (1998) cited in Ebadi et al. (2023)

stated that thematic analysis is a tool used in qualitative research to detect patterns and themes in a particular scenario, and it entails systematically monitoring different events to uncover categories and themes. Data trustworthiness was established through triangulation, comparing questionnaire and interview's data.

Before interpreting the result of the questionnaire, it was essential to determine the interval. The interval was decided based on the Likert scale used in the questionnaire (4 = strongly agree and 1 = strongly disagree). From that scale, the maximum was 4 and the minimum was 1, so the range was 3 (maximum – minimum) and the interval was 0.75 (range was divided by maximum scale). The interval ranges were as follows (table 1).

Table 1. Interval Range

Range	Indicator
1 – 1.74	Strongly disagree
1.75 – 2.49	Disagree
2.50 – 3.24	Agree
3.25 - 4	Strongly agree

## RESULTS AND DISCUSSIONS

An analysis of the questionnaire data revealed that Grammarly was the most frequently used grammar checker among the participants (47%), followed by Quillbot (30%), Microsoft Word Grammar Checker (19%), other grammar checking software (3%), and Wordtune (1%). KAKU was not utilized by any participant (Figure 1).

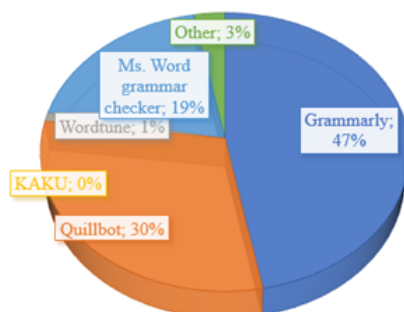


Figure 1. Types of Grammar Checkers

### Practicality

The result of the questionnaire showed that the grammar checker was practical. The mean was 3.35. The practicality indicator was represented in items 1, 2, 3, and 5. The mean of those items were 3.48, 3.36, 3.36, and 3.20, respectively (Table 2).

Table 2. Practicality of Grammar Checkers

Statements	Mean
S1 Grammar checkers (Grammarly, Microsoft Word Grammar Checker, etc.) were easy to use.	3.48
S2 Functions that are well-integrated in grammar checkers (Grammarly, Microsoft Word Grammar Checker, etc.) are easier to use.	3.36
S3 Feedback provided by grammar checkers (Grammarly, Microsoft Word Grammar Checker, etc.) was easy to understand.	3.36
S5 Feedback provided by grammar checkers (Grammarly, Microsoft Word Grammar Checker, etc.) was correct.	3.20
	3.35

The result of the interview suggested that two participants (P7 and P8) revealed grammar checkers were easy to use. It was in line with the research results of Fahmi & Cahyono (2021) which stated that 93% of students find Grammarly was easy to use. Six participants also (P1, P4, P6, P7, P9, and P10) mentioned that the feedback given by grammar checkers was understandable. A participant (P3) explained that the features of grammar checkers were easy to use. Further, one participant (P1) clarified that the feedback given by the grammar checker was correct. However, a participant (P7) reported that grammar checkers gave out-of-context feedback. Interview excerpts as follows:

*P7: Yes, it's easy.*

*P8: In my experience, it's very easy to use.*

*P7: When we talk about feedback, it is understandable.*

*P3: I often use it too. I'm used to its features which are also easy to use.*

*P1: In my opinion, it's easy to understand.*

*P4: It's easy to understand, so far, it's right too.*

*P6: Relatively easy to understand.*

*P7: Grammarly gave out-of-context feedback.*

*P9: But overall, the results are easy to understand.*

*P1: As for the feedback, I think it's correct, you could say it's correct.*

*P10: It's easy to understand the feedback.*

## Usefulness

The questionnaire results indicated that grammar checkers were useful. The overall mean score was 3.27. Statement items 4, 6, 7, 8, 9, 10, 11, 12, and 15 specifically addressed usefulness, and their average scores were 3.18, 3.54, 3.38, 3.20, 3.40, 3.26, 3.08, 2.98, and 3.38, respectively (Table 3).

Table 3. Usefulness of Grammar Checkers

Statements	Mean
S4 Grammar checkers (Grammarly, Microsoft Word Grammar Checker, etc.) provide detailed or comprehensive feedback.	3.18
S6 Time efficiency when revising my writing was improved when using grammar checkers (Grammarly, Microsoft Word Grammar Checker, etc.).	3.54
S7 My writing improved after using grammar checkers (Grammarly, Microsoft Word Grammar Checker, etc.).	3.38
S8 I submitted my writing with confidence because I revise it based on the feedback provided by grammar checkers (Grammarly, Microsoft Word Grammar Checker, etc.).	3.20
S9 Feedback from grammar checkers (Grammarly, Microsoft Word Grammar Checker, etc.) was important for revising my writing.	3.40
S10 My writing was better after incorporating feedback from grammar checkers (Grammarly, Microsoft Word Grammar Checker, etc.).	3.26
S11 My language skills improved in the long term because I can understand more grammar rules after using grammar checkers (Grammarly, Microsoft Word Grammar Checker, etc.).	3.08
S12 Feedback from grammar checkers (Grammarly, Microsoft Word Grammar Checker, etc.) boosted my confidence in using language in the long term by enhancing my understanding of grammar rules.	2.98
S15 Overall, grammar checkers (Grammarly, Microsoft Word Grammar Checker, etc.) were crucial for me as they enhance my writing and language skills.	3.38
	3.27

The interview results revealed positive perceptions of grammar checkers among the participants. Three participants (P1, P2, and P8) explained the feedback provided by grammar

checkers was complete as needed, while two others (P3 and P5) mentioned that using grammar checkers could save their time in correcting academic writing. Furthermore, three participants (P3, P5, and P6) perceived their writing became better after using grammar checkers. Two participants (P9 and P3) felt that he was confident in submitting assignments after revising based on the feedback provided by grammar checkers. In addition to two participants (P4 and P9) thought that feedback from grammar checkers was important to revise their writing. While three participants (P4, P5, and P10) reported long-term improvement in their language skills due to a better understanding of grammar rules gained from using grammar checkers. The interview results are as follows:

*P1: It is enough for my needs.*

*P2: If it's detailed, I feel according to what I need in correcting writing.*

*P8: For Grammarly, it is quite complete for the feedback given*

*P3: What I like is that it makes it works comfortably and quickly in correcting writing.*

*P5: For me personally, it's probably more to shorten the time, efficiency too.*

*P3: Yes, like what I said earlier, so I write the paper in more detail and my writing becomes better.*

*P6: So, if we write more often and use the grammar checker, we become more informed or accustomed to the patterns that should be, so you know.*

*P9: There are some synonyms or antonyms that seem to be good to use and are given by the grammar checker when I write so I feel more confident when I submit the assignment that the writing is correct.*

*P4: If the grammar checker is clear, it really helps.*

*P9: The grammar checker also helps to correct punctuation or spelling, especially on that. Moreover, sometimes there are also typos in typing that can also really help correct my writing.*

*P5: Personally, I can learn new words.*

*P4: It's more like following the proper grammar.*

*P10: In my opinion, the benefits that I get are knowing the sentence structure in the English. P3: Because I think grammar checker is very useful. We know the correct or incorrect grammar, so we are more confident when using English.*

*P5: It's also important to be able to learn faster like how to write the correct words or grammar.*

The results of the study were similar vein to previous studies such as Cavaleri & Dianati (2016), Fahmi & Cahyono (2021), and McAlexander (2000). Fahmi & Cahyono (2021) found that Grammarly helped students in improving the quality of their writing and their confidence in submitting their assignments. Further, McAlexander (2000) who claimed that grammar checkers improved students' understanding of grammar rules. Similarly, Cavaleri & Dianati (2016) reported that students who considered Grammarly increased their confidence in writing and understanding of grammatical concepts.

### **Satisfaction**

Analysis of the questionnaire revealed that participants were satisfied with grammar checkers. The average score across all responses was 3.30. Specifically, items 13 and 14, which directly assessed satisfaction, averaged at 3.32 and 3.28, respectively. Data could be seen in Table 4.

Table 4. Satisfaction of Grammar Checker

Statements	Mean
S13 I was satisfied with the feedback provided by grammar checkers (Grammarly, Microsoft Word Grammar Checker, etc.).	3.32
S14 Explanations of grammar errors given by grammar checkers (Grammarly, Microsoft Word Grammar Checker, etc.) were very clear.	3.28
	3.30

One participant (P8) expressed satisfaction with the grammar checker's feedback, citing the clear explanations of writing errors. Another participant (P7) was also satisfied but noted the need for personal rechecking.

*P8: I feel quite satisfied with this Grammarly because besides being easy to access there are explanations too.*

*P7: Satisfied, but I sometimes, yes, check again.*

This study found that Grammarly was the most famous grammar checker tool among the students. They used Grammarly to make a correction of their writing. Most of them said that it was a useful tool in correcting their writing. It also gave detailed and complete feedback so they can improve their ability and confidence in using English. The result was similar with the findings of Cavaleri & Dianati (2016) and Ebadi et al. (2023) who found that students viewed Grammarly as a useful and convenient tool for checking grammar, enhancing their confidence in writing and improving their understanding of grammatical concepts.

## CONCLUSION

This study aims to investigate students' perspectives on using grammar checkers in academic writing. Based on the results, the most frequently used grammar checker by participants was Grammarly, followed by Quillbot and Microsoft Word Grammar Checker. Other tools such as Wordtune and KAKU were used much less frequently. The other findings show that grammar checkers were considered easy to use. This statement showed that participants found grammar checkers were user-friendly and the feedback provided was understandable. In addition, grammar checkers also provided feedback that was mostly considered correct by the participants. They are also considered useful because they help students improve writing efficiency and writing quality. The benefits of grammar checkers could also build participants' confidence in submitting assignments. However, the improvement in long-term language skills was rated slightly lower, indicating room for improvement in how these grammar checkers improve grammatical understanding. Overall, participants were satisfied with the grammar checkers. The explanations provided by the grammar checkers were considered clear enough for them to correct their writing. However, even so, there were still students who felt that it was needed to recheck the feedback manually.

This study has some limitations. It did not capture the perspectives of a wider range of potential users, such as educators and professionals. Furthermore, it did not consider variations in students' language proficiency levels, which may influence their perceptions and the effectiveness of grammar checkers. These limitations may affect the generalizability of the findings, highlighting the need for future research that includes diverse user groups and varying levels of language proficiency. Further studies could provide greater insight into the long-term impact of grammar checker use on language proficiency and academic performance.

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