

EXPLORING GRAMMARLY AS AN ARTIFICIAL INTELLIGENCE TOOL ON MANAGEMENT STUDENTS' RESEARCH WRITING SKILLS: A STUDY BASED ON THE OPEN UNIVERSITY OF SRI LANKA

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The integration of Grammarly as an Artificial Intelligence (AI) tool into the realm of education has brought forth transformative possibilities, particularly in the context of enhancing student writing skills. Studies worldwide have explored how this AI tool assists students in improving their writing skills. The current study explores how Grammarly as an AI tool improves the research writing skills of undergraduate Management studies students. It presents the results of how Grammarly as an AI tool impacts Management studies students' research and writing skills at the Open University of Sri Lanka. The participants of the study include 62 final-year research students from the Faculty of Management Studies representing different departments of the Open University of Sri Lanka. The study utilized a qualitative research design to gather information using semi-structured interviews and questionnaires. The gathered qualitative data were analysed using Thematic Analysis under four themes. Findings revealed that the Management studies students' research writing skills were significantly enhanced when using Grammarly as an AI tool, and it is an effective instrument for error correction in developing students' writing skills. These findings demonstrate how Grammarly as an AI tool supports students in writing research who find it challenging to write well in English, and the researchers concluded that Grammarly can be used as an appropriate AI tool to minimize errors and improve students' writing quality.

Keywords: Grammarly, Research Writing skills, AI tool, Management studies students

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INTRODUCTION

Within the vast landscape of modern technology, Artificial Intelligence (AI) stands out as a transformative force, enabling machines to mimic tasks that traditionally require human intelligence. This area, especially AI in the English language arena, has become the center of attention of most scholars in the world (cotton et al., 2024; Gayed et al., 2022; Ranalli & Yamashita, 2022; Su & yang, 2023b). However, within the Sri Lankan context, a small number of empirical findings are available in the literature, mainly due to the subject being a relatively new phenomenon in the country. Therefore, this study will fill the existing literature gap within the mentioned area. On the other hand, among the small number of empirical findings, even a lesser number of empirical findings are available, crucially targeting Grammarly.com (Ghufron, 2019; Nova, 2018; O'neill & Russell, 2019). Thus, the present study aims to bridge the current gap in the literature about the indicated field especially in Sri Lankan context. Scholarly findings are generally focused on AI tools and writing skills of ESL (English as a second language) students. With reference to the available literature, no researcher has been able to investigate the mentioned relationship among final-year undergraduate research students of the Management faculties. Students who are at the final stage of their undergraduate journey find numerous difficulties when writing their final year research project. These AI-based applications can, therefore, be utilized effectively to shape their research projects.

Research Objectives

- 1. To explore how Grammarly affects the research writing skills of Management Studies students of the Open University of Sri Lanka
 - 1.1 To explore the correctness of the research report written using Grammarly
 - 1.2 To explore the clarity of the research report written using Grammarly
 - 1.3 To explore the engagement of the research report written using Grammarly
 - 1.4 To explore the delivery of the research report written using Grammarly
- 2. To explore the perceptions of learners towards Grammarly in research writing

Research Questions

- 1. How does Grammarly affect the research writing skills of Management Studies students of the Open University of Sri Lanka?
 - 1.1 To what extent does Grammarly affect the correctness of the research report?
 - 1.2 To what extent does Grammarly affect the clarity of the research report?
 - 1.3 To what extent does Grammarly affect the engagement of the research report
 - 1.4 To what extent does Grammarly affect the delivery of the research report
- 2. What are the perceptions of learners towards Grammarly in research writing?



METHODOLOGY

This research was designed as a qualitative study. Semi-structured interviews were conducted with students to gain deeper insight. Both physical and telephone interviews were conducted. A self-administered online questionnaire was also used to gather data. It was comprised of several open-ended questions using Google Forms. In this research study, 25 students were chosen for interviews, and 37 were selected as participants for the questionnaire representing the Open University of Sri Lanka (Kandy Regional Centre and Colombo Regional Centre). All the participants were final-year undergraduates in management studies.

Data Collection and Analysis

Table 1: Interview and Answers Themes and Definitions

Theme	Theme Definition
Benefits of Grammarly in Research	Statements or examples about specific ways that
Writing	Grammarly aided students in their research writing
Mistakes that Grammarly can rectify	Statements or examples about types of mistakes that Grammarly helps students
Limitations of Grammarly encountered by students	Statements or examples about specific limitations that students experienced when using Grammarly
Suggestions for using Grammarly in	Statements, examples, and suggestions about how
future research writing	Grammarly might be improved when used in
	research writing in the future

Source: Author generated

RESULTS AND DISCUSSION

Comments from the semi-structured interviews with the management studies undergraduates and the answers to the open-ended questions from the questionnaire were coded according to the themes that emerged and were categorized in the form of a table for ease of reference (Table 2). These focused on how Grammarly benefited students in research writing, mistakes they could rectify, limitations encountered when using it, and their suggestions for the future.

Table 2: Comments expressed by the respondents

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Theme	Comments	
Benefits of	Grammarly helped learners in research writing to:	
Grammarly in	Minimize language errors and improve their writing	
Research	Omit unnecessary words and phrases when writing wordy	
Writing	sentences	
	Enhance clarity and readability	
	Improve their vocabulary	
	Offer different style suggestions	
	Provide Real-time writing assistance	
Mistakes that	Grammarly helped students to rectify mistakes:	
Grammarly	Misuse of the passive voice	
can rectify	Punctation mistakes	
	Misuse of relative pronouns	
	Use of empty words and phrases	
	• Consistencies	
	Unclear antecedents	



	Weak words and hackneyed phrases	
	Misuse of articles	
	Misuse of prepositional phrases	
	Wordy, long and complex sentences	
	Convey the right tone using words	
Limitations of	Drawbacks experienced by the students:	
Grammarly	Does not allow offline editing	
encountered	No control to tell it to ignore when the sentence is actually	
by students	correct	
	Does not catch every mistake	
	The paraphrasing option is available only in the Grammarly	
	premium version	
Suggestions	Recommendations suggested by the students for enhancing Grammarly in	
for improving	the future:	
Grammarly in	Allow offline editing	
the future	Avoid suggestions when the sentence is actually correct	
	Make the paraphrasing option available in the Grammarly free	
	version	

Source: Author generated

Table 2 emphasizes the importance of using Grammarly in research writing for Management Studies students. The majority of participants claimed that Grammarly helped them in their research writing. For example, one participant noted, "I could decrease my errors in the English language and improve my research report." Because, Grammarly points out errors (Grammar, spelling, and punctuation) and makes suggestions to correct them. Students tend to make a lot of mistakes when they write wordy sentences. With the help of Grammarly, they could eliminate unnecessary words and phrases and thereby enhance the clarity and readability of their research report. Furthermore, the participants stated that Grammarly assisted them in improving their vocabulary as it offered different style suggestions. Therefore, all these factors emphasize that Grammarly was their real-time AI assistant. The mistakes mentioned by the participants can be categorized into four categories: correctness, clarity, engagement, and delivery, which are the four types of errors identified by Grammarly.

Correctness:

- Punctuation mistakes: More than half of the total number of mistakes fall under punctuation, indicating that this aspect of writing was not addressed promptly. Out of that, the majority is incorrect use or absence of commas is the main mistake
- The misuse of articles: The other prevailing mistake is the incorrect use of articles.
- Consistency: Grammarly identifies cases of inconsistency in using British and American English in the same research paper. This is also found when writing numbers, acronyms, etc.

Clarity:

- Wordy, long, and complex sentences: Clarity and readability of writing are often destroyed by very long sentences containing around 50 words that are hard to understand, even by a knowledgeable examiner. Therefore, students need to proofread their research reports to remove extra words and awkward phrases and ensure the sentence is clear and readable.
- Misuse of relative pronouns: The meaning of the sentence is often changed by the misuse of relative pronouns (which, that, who, and whom). For example, many students use the relative pronoun "that" instead of "who."
- Misuse of the passive voice: The use of passive voice is significantly important in research writing, especially in the literature review, methodology, and findings chapters. Wrong use of the passive voice is another major error that can be found among management studies students. The passive voice is employed when we want to focus on the action rather than who is doing it.



- Misuse of prepositional phrases: Many students revealed that they make mistakes when using prepositional phrases and one student noted that "I always get confused whether to use "in the article" or "on the article". This highlights the fact that students do not have proper knowledge about prepositional phrases.
- Unclear antecedents: Unclear antecedents such as this, that, they, these, and those are other types of mistakes that harm the true meaning of a sentence.

Table 3: A table of antecedents for noun

Table 5: 11 table of afficeedents for flour		
Noun	Antecedents	
Researchers	They	
Findings	These	
Data	This	

Source: Author generated (Observations)

Engagement:

- Use of empty words and phrases: As pointed out by the students, the use of empty words and phrases weaken the message, leading to dull and monotonous passages.

Table 4: A table of empty words, phrases and suggestions

Example	Suggestion
Which is why	Therefore
Due to the fact that	Because

Source: Author generated (Observations)

- Use of weak words and hackneyed phrases: Grammarly also helps students by providing recommendations to replace weak words or hackneyed phrases with more expressive options.

Table 5: A table of weak words and suggestions

Weak words	Suggestion
Certainly	Undoubtedly
Above mentioned findings	Findings mentioned above
A lot of	Many

Source: Author generated (Observations)

Delivery:

- Convey the right tone using words: It is important to use words that convey the correct tone and make sure that the examiner understands what the student intends to convey. This is the final important element. The final year research project should also maintain the quality of academic writing. Grammarly offers various suggestions to convey the proper idea with confidence, politeness, formality, and respect to maintain the quality of the work.

On the other hand, certain students experienced some drawbacks when using Grammarly in their research writing. One student said, "I couldn't use Grammarly for offline editing," which is one of the major drawbacks they experienced. Because Grammarly does not allow users to edit their documents offline. Also, there is no option to ignore every instance of a mistake when the sentence is actually correct. This is because Grammarly makes suggestions for every sentence and this interrupts the writers' own ideas. On the other hand, it does not recognize every single mistake and this was another limitation identified by the students. One student also emphasized that "although sometimes Grammarly free version points out the mistakes it does not provide the suggestions". It asks to get the Grammarly premium version for more accurate suggestions. Further, the majority of the participants stated that "I could not paraphrase sentences directly extracted from the original articles because I use Grammarly free version. This is due to the fact that the paraphrasing option is available only in the



Grammarly premium version. By using it students are able to rewrite sentences smoothly and convey the message confidently. However, this is not available in the Grammarly free version.

Finally, students made some suggestions to overcome the above-mentioned limitations and use Grammarly in their future research writing. The main suggestion given by the students was to allow offline editing. At the same time, they said it would be better if the paraphrasing option was available in Grammarly's free version. They also mentioned it is better to avoid suggestions when the sentence is already correct.

CONCLUSION AND RECOMMENDATION

The study has investigated how Grammarly improves the research writing skills of final-year Management studies students. The study utilized the qualitative research approach to collect data. For data collection, 62 respondents were qualified for the interviews and questionnaire distribution. The findings indicated that Grammarly as an AI tool contributed to management studies students to improve their research writing skills. Students who employed Grammarly in their research writing could shape their research reports by overcoming their mistakes. However, as per the findings of the study, there was a group of students who have not used Grammarly for their research reports and it can be recommended for them to use it in future research writing. Moreover, the university can purchase and provide the students with the Grammarly premium version to use it for their academic writing. Thus, as the main recommendation, students can be encouraged to use this AI tool for their future research writing.

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