

Received: 11 November 2022 Accepted: 28 March, 2023

DOI: <https://doi.org/10.33182/rr.v8i4.256>

The Impact Of AI-Powered Grammarly on Enhancing Grammar Proficiency Among Saudi EFL Students

Dr. Abeer Hejab E Alotaibi¹

Abstract

The integration of Artificial Intelligence (AI) into English as a Foreign Language (EFL) writing processes has led to a paradigm shift in language learning. The aim is to assess how AI technologies, exemplified by Grammarly, impact EFL learners' writing skills. This research was conducted using a descriptive quantitative method. The study's methodology involves conducting a survey to gauge students' perceptions and experiences with Grammarly's grammar-checking capabilities. The findings elucidate both the advantages and limitations of using Grammarly for writing enhancement. The research reveals Grammarly's effectiveness in identifying grammatical errors, providing explanations, and instilling writer confidence. However, concerns are raised regarding potential overreliance on AI and instances where meaning might be inadvertently altered. The study concludes with recommendations for striking a balanced approach to AI integration in EFL writing education, emphasizing the importance of maintaining foundational language skills alongside AI assistance.

Keywords: Artificial Intelligence, Grammarly, Saudi EFL students, writing skill.

Introduction

In the rapidly evolving landscape of language education, the integration of Artificial Intelligence (AI) tools has gained significant attention, offering innovative ways to enhance language acquisition, and writing skills. English as a Foreign Language (EFL) learners often face unique challenges in mastering grammatical intricacies and stylistic nuances. The emergence of AI-powered writing assistants, exemplified by tools like Grammarly, presents a pivotal moment to investigate their potential impact on EFL writing instruction (Fitria, 2021). As the global demand for proficient English communication continues to grow, understanding the role of AI in addressing EFL writing challenges becomes crucial for both educators and learners.

The integration of Artificial Intelligence (AI), exemplified by tools like Grammarly, has demonstrated a substantial impact on enhancing grammatical accuracy and syntax in English as a Foreign Language (EFL) writing. AI-powered writing assistants meticulously scan texts, identifying errors in verb agreement, tense usage, and sentence structure. EFL learners often grapple with these aspects due to the complexity of English grammar (Fahmi, Cahyono, 2021). By offering real-time corrections and explanations, AI tools contribute to the immediate rectification of these

¹ Assistant professor of applied linguistics, Majmaah University

errors, aiding learners in acquiring a more intuitive understanding of grammar rules.

A pivotal aspect of proficient EFL writing lies in the selection and deployment of an extensive vocabulary. AI tools, such as Grammarly, play a significant role in this domain by suggesting synonyms and alternate word choices. EFL learners, while striving to express themselves accurately, often encounter challenges in vocabulary selection. Grammarly's lexical enhancement capabilities offer a range of synonyms and contextually appropriate terms, encouraging learners to diversify their word choices and subsequently enhance the sophistication of their writing (Parra, 2019).

1.1 Statement of the Problem:

Despite the proliferation of AI-driven language tools and their increasing incorporation into educational settings, there remains a gap in comprehensive empirical research regarding their effectiveness and implications specifically in the realm of EFL writing. While anecdotal evidence suggests that tools like Grammarly can offer real-time grammar and style correction, limited research has systematically examined their influence on various aspects of EFL writing, such as grammatical accuracy, vocabulary enhancement, and overall writing quality (Fitriana, Nurazni, 2022). Therefore, this study aims to address this gap by conducting an in-depth exploration of the influence of Artificial Intelligence, specifically through the Grammarly tool, on EFL writing proficiency.

1.2 Research Objectives:

The primary objective of this research is to investigate the extent to which the Grammarly tool, as an AI-powered writing assistant, influences EFL learners' writing skills. This involves examining improvements in grammatical accuracy, lexical richness, writing fluency, and adherence to stylistic conventions. Additionally, the study seeks to explore the perceptions and attitudes of EFL learners toward using AI tools for writing improvement.

Literature review

2.1 Evolution of Artificial Intelligence in Language Processing:

The evolution of Artificial Intelligence (AI) has significantly transformed the landscape of language processing and education. Early AI language models focused on rule-based approaches, but the advent of neural networks and deep learning marked a paradigm shift, enabling machines to process and generate human-like language (Abdalkader, 2022). This evolution paved the way for sophisticated language technologies, including natural language processing (NLP) and machine learning (ML) techniques. As AI-driven language processing continues to advance, its integration into educational settings presents new opportunities for improving language learning and writing skills.

The integration of AI into language learning, particularly within the context of English as a Foreign

Language (EFL), has gained traction in recent years. AI-powered language tools offer personalized learning experiences, enabling learners to receive instant feedback on their writing and speech. This adaptability aligns with the diverse proficiency levels and individual learning pace of EFL students (Rahman, Zulkornain, Hamzah, 2022). AI can facilitate immersive language learning through chatbots, interactive exercises, and real-time communication, addressing the limitations of traditional instruction methods. These advancements highlight the potential of AI to revolutionize EFL education.

2.2 Overview of Grammarly Tool:

Grammarly stands as one of the foremost AI-powered writing assistants, offering a versatile range of features aimed at enhancing written communication. This tool leverages advanced Natural Language Processing (NLP) algorithms to analyze text comprehensively, going beyond conventional grammar correction. Grammarly's integration extends to various platforms, including web browsers, word processing software, and mobile applications, providing users with seamless accessibility (Huang, Taylor, 2020). Its popularity stems from the promise of real-time feedback and improvement suggestions, making it an attractive solution for individuals seeking to enhance their writing quality.

Beyond its grammatical correction functionalities, Grammarly encompasses a diverse array of capabilities. It identifies spelling errors, punctuation inconsistencies, and sentence structure flaws, aiding users in crafting coherent and error-free text. Moreover, the tool offers insights into writing style, suggesting refinements to sentence clarity and conciseness. Notably, its advanced features encompass vocabulary enrichment, providing synonyms and suggesting word variations to enhance lexical diversity (Gayed, et.a., 2022). Grammarly's AI-driven approach extends beyond surface-level errors, aiming to elevate writing by addressing multifaceted linguistic dimensions.

The user experience and interface of Grammarly are designed with accessibility and user-friendliness in mind. Users can seamlessly integrate Grammarly into their writing process, either through browser extensions or standalone applications. The tool's interface provides a real-time overlay on text, highlighting potential errors and offering suggestions for correction (Dodigovic, Tovmasyan, 2021). This immediate feedback mechanism fosters a dynamic writing environment, enabling users to learn from their mistakes and improve in real-time. Additionally, the interface offers explanations for suggested changes, enhancing users' understanding of grammatical concepts.

In the realm of English as a Foreign Language (EFL) writing, Grammarly's relevance emerges from its potential to address common linguistic challenges faced by EFL learners. By offering contextual grammar suggestions and identifying sentence-level issues, Grammarly aligns with the pedagogical needs of EFL instruction (Nazari, Shabbir, 2021). Its vocabulary enrichment features can aid learners in expanding their word choices, contributing to enhanced language proficiency.

2.3 Influence of Artificial Intelligence on EFL Writing

Writing fluency and style constitute integral components of effective EFL communication. AI-powered tools contribute to these dimensions by promoting coherent sentence construction and assisting in the establishment of a consistent writing style. EFL learners, when grappling with language nuances, may produce disjointed or fragmented texts (Tambunan, Andayani, Sari, 2022). Grammarly's real-time suggestions facilitate the improvement of sentence flow, thereby enhancing overall writing fluency. The tool's insights on style encourage learners to fine-tune their writing tone and voice, ultimately contributing to more engaging and compelling compositions.

EFL writing is often characterized by specific challenges, including idiomatic expressions, preposition usage, and article placement, which may not directly align with learners' native language structures. AI tools like Grammarly play a pivotal role in mitigating these challenges (Dizon, Gayed, 2021). By offering context-based suggestions and highlighting potential pitfalls, the tool assists EFL writers in navigating intricate linguistic aspects that can be particularly perplexing. Thus, AI tools have the potential to serve as an accessible and valuable resource for EFL learners grappling with these idiosyncratic writing challenges.

Method

Study Design:

This research adopts a descriptive quantitative approach to investigate the perspectives and opinions of English as a Foreign Language (EFL) students regarding their utilization of Grammarly for grammar checking in article writing. The primary focus of the study is to understand the impact of Artificial Intelligence on EFL writing through the application of the Grammarly tool.

Participants

This study was conducted within the English Department of Majmaah University in Saudi Arabia. The population consisted of 120 students from the English Department. A non-probability sampling technique, specifically purposive sampling, was employed. As a result, 40 out of the total 120 EFL students were selected as participants for this study.

Instruments:

Data collection was facilitated through a close-ended questionnaire, adapted from previous research articles by Armanda.et.al., (2022). These sources explored the use of Grammarly as an online grammar checker. The questionnaire employed a Likert scale with five response options: Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), and Strongly Disagree (SD). The data was obtained from the EFL students by filling out questionnaires on Google Form with 14 statements. These statements were organized into two sections, each aiming to gather insights into the students' perspectives and opinions on the integration of Grammarly in their article writing process.

Results and Discussion

In this section, we discuss the results of the questionnaires that were obtained from EFL students' responses, which purposed to know their perspectives and opinions about using the Grammarly tool, as an AI-powered writing assistant, influences their writing skills. It consisted of 14 statements and was organized into two sections.

Table 1: Students' Opinion About the Use of Grammarly

	Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)	Strongly Disagree (SD)
Grammarly increases student motivation to learn.	0%	45%	40%	15%	0%
Grammarly provides complete features and easy-to-use procedures.	30%	30%	40%	0%	0%
The Grammarly is very flexible in its use.	30%	27.5%	15%	27.5%	0%
I'm sure with the correctness of grammar by using Grammarly.	22.5%	40%	17.5%	20%	0%
Grammarly is easy to use for correcting grammar.	10%	42.5%	32.5%	15%	0%
Grammarly is not efficient when students use free applications.	22.5%	60%	17.5%	0%	0%
Grammarly is convenient to use for correcting grammar.	47.5%	22.5%	15%	15%	0%

This table presents the findings from the questionnaires administered to English as a Foreign Language (EFL) students, aimed at gauging their perspectives on the impact of Grammarly, an AI-powered writing assistant, on their writing skills. The responses were organized into strongly agree, agree, neutral, disagree, and strongly disagree categories. It was illustrated that 45% of students agree that Grammarly enhances their motivation to learn, despite a lack of Strongly Agree responses. While 60% believe that Grammarly surpasses free applications in efficiency, a significant portion (22.5%) is of the opposite opinion. It is interesting to observe that a substantial percentage (40%) agrees with the software's ease of use for both grammar correction and providing comprehensive features, further supported by the positive feedback on its convenience (47.5%). Meanwhile, the platform's flexibility garners mixed responses, with 30% strongly agreeing, yet 27.5% disagreeing. Interestingly, confidence in Grammarly's grammar accuracy receives moderate approval (40%), although Strongly Agree and Disagree categories are less prominent.

Table 2: Students' Perception About the Feedback of Grammarly

	Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)	Strongly Disagree (SD)
Grammarly can cover the use of subjects, verbs, pronounce, and prepositions.	10%	60%	17.5%	0%	12.5%

Grammarly can correct your grammatical errors in the process of writing an article.	40%	35%	10%	15%	0%
You do not feel difficulty in using Grammarly in the process of writing an article.	10%	47.5%	15%	27.5%	0%
Grammarly is beneficial to correct your grammatical errors in the process of writing an article.	7.5%	52.5%	12.5%	27.5%	0%
Grammarly provides explanations that can improve your writing skills.	30%	30%	12.5%	12.5%	15%
Grammarly does not make you confuse because the explanation is easy to understand.	10%	65%	2.5%	22.5%	0%
Grammarly makes you feel more confident because the feature of Grammarly can correct your grammatical errors in the process of writing.	65%	10%	10%	0%	15%

Table 2 presents a comprehensive overview of EFL students' perceptions regarding the feedback provided by Grammarly, an AI-powered writing assistant. The data is categorized into strongly agree, agree, neutral, disagree, and strongly disagree responses. Notably, a significant proportion (60%) agreed that Grammarly effectively addresses subjects, verbs, pronouns, and prepositions. Moreover, 40% acknowledged its ability to rectify grammatical errors during the writing process, enhancing the accuracy of their articles.

On the other hand, there was a variation in views concerning ease of use, with 47.5% not finding it difficult, while 27.5% did. Furthermore, over half (52.5%) recognized the benefits of Grammarly for error correction, and 30% agreed that its explanations contribute to improved writing skills. Interestingly, 65% felt more confident due to Grammarly's error correction feature, and an equally noteworthy portion (65%) agreed that the tool's explanations were easy to understand.

The Advantages of Using Grammarly

Utilizing Grammarly offers a range of notable advantages that significantly enhance the quality and effectiveness of writing. Firstly, Grammarly serves as a reliable and efficient AI-powered writing assistant that helps writers identify and correct various grammatical errors, ensuring the accuracy and clarity of their content. This elevates the overall professionalism of the writing and saves time by streamlining the editing process. Additionally, Grammarly provides insightful explanations for suggested corrections, aiding writers in understanding grammatical rules and improving their language proficiency over time.

The tool's comprehensive coverage of subjects, verbs, pronouns, prepositions, and more ensures a thorough review of written material. Moreover, the user-friendly interface of Grammarly makes it accessible to writers of all skill levels, promoting ease of use and a hassle-free experience. Another significant advantage lies in its contribution to heightened confidence levels among writers, as the tool's consistent error detection and correction bolster the assurance that one's work is error-free.

The integration of Grammarly into the writing process empowers individuals to produce polished, error-free, and linguistically sound content while also facilitating a deeper understanding of grammar and writing conventions.

The Drawbacks of Using Grammarly

While Grammarly offers numerous benefits, there are also certain drawbacks associated with its use. One primary concern is the potential overreliance on the tool, leading to a diminished grasp of grammar and writing skills. Relying solely on Grammarly's suggestions for corrections might hinder the writer's ability to learn and internalize grammar rules independently. Additionally, Grammarly's suggestions can occasionally be contextually incorrect or overly aggressive, leading to unintended changes that alter the intended meaning of the text. This requires writers to carefully review each suggestion, which can be time-consuming, especially for longer pieces of writing.

Another drawback is the tool's limited support for more advanced or specialized writing styles, such as technical or academic writing, which might require a nuanced understanding of language beyond what Grammarly offers. Furthermore, while Grammarly is proficient in identifying mechanical errors, it might overlook stylistic or structural issues that are crucial for the overall coherence and flow of the content.

Lastly, the reliance on an online tool like Grammarly raises privacy concerns, as the text being checked could potentially be stored or accessed by the platform. Therefore, while Grammarly can be a valuable aid, writers should use it judiciously, combining its assistance with an ongoing effort to refine their own writing skills and discernment.

Conclusion and Recommendation

Mastering the four fundamental skills of English is essential for language learners, and among these skills, writing holds a pivotal place. Particularly significant for students in English Department programs, writing entails a spectrum of tasks like practice exercises, composing journal articles, and crafting proposals. In navigating these assignments, students often require tools that ensure the accuracy of their work, especially in terms of grammar. In response, the Grammarly application and website have been examined from the standpoint of students within the English Education Department at Majmaah University in Saudi Arabia., evaluating Grammarly as an online grammar checker. The research findings underscore Grammarly's dual nature, showcasing its strengths and limitations.

Grammarly emerges as a valuable aid for students in their grammar-checking endeavors. It offers user-friendly features and an exhaustive array of tools. Distinctively, Grammarly is resource-efficient, preserving data usage, and excels in pinpointing subtle grammatical inaccuracies, such as issues with article usage. Nevertheless, the corrections proposed by Grammarly are not infallible; they occasionally alter intended meanings and disrupt sentence flow. Paradoxically, this shortfall

benefits students by facilitating inadvertent grammar reinforcement as they review Grammarly's edits. This process triggers memory recall regarding grammar concepts, fostering a deeper understanding of punctuation, articles, and patterns.

Despite its imperfections, Grammarly significantly aids students, particularly those in English Education programs, in fortifying their grammar proficiency. The platform's merits encompass comprehensive tools, data efficiency, adeptness in detecting subtle errors, and more. However, it also possesses certain drawbacks tied to altering meanings and disrupting coherence. This research presents inherent limitations and suggests avenues for future studies.

The researcher recommends investigations involving different demographics, such as senior high school students, as well as exploring Grammarly's role in enhancing reading skills, a domain less explored compared to writing skills. By expanding the scope and participant base, subsequent studies can enhance the understanding of Grammarly's impact, thereby enriching the existing body of knowledge.

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Appendix

Questionnaire

To what extent do you agree with these phrases, please rate from 1 to 5, 1 being Strongly Agree (SA), and 5 being Strongly Disagree (SD).

Section 1: Students' Opinion About the Use of Grammarly

1. Grammarly increases student motivation to learn.
2. Grammarly provides complete features and easy-to-use procedures.
3. The Grammarly is very flexible in its use.
4. I'm sure with the correctness of grammar by using Grammarly.
5. Grammarly is easy to use for correcting grammar.
6. Grammarly is not efficient when students use free applications.
7. Grammarly is convenient to use for correcting grammar.

Section 2: Students' Perception About the Feedback of Grammarly

1. Grammarly can cover the use of subjects, verbs, pronounce, and prepositions.
2. Grammarly can correct your grammatical errors in the process of writing an article.
3. You do not feel difficulty in using Grammarly in the process of writing an article.
4. Grammarly is beneficial to correct your grammatical errors in the process of writing an article.
5. Grammarly provides explanations that can improve your writing skills.
6. Grammarly does not make you confuse because the explanation is easy to understand.

Grammarly makes you feel more confident because the feature of Grammarly can correct your grammatical errors in the process of writing.