

**استخدام "قرامرلي" كمدقق كتابة آلي مدعوم بالذكاء الاصطناعي -
آراء الطلاب-المعلمين الليبيين الذين يدرسون اللغة الإنجليزية كلغة أجنبية
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الملخص :

"قرامرلي" هو أحد أدوات فحص الكتابة الآلية المدعومة بالذكاء الاصطناعي والذي يَدقق لغة النصوص المكتوبة من قبل طلبة اللغة الانجليزية كلغة أجنبية ويحدّد الأخطاء ويقدم ملاحظات حول كيفية تصحيحها، وعلى الرغم من أن العديد من الدّراسات استقصت وقيمت فاعلية (قرامرلي) في سياقات مختلفة، إلا أن مراجعة الأبحاث المنشورة حالياً حول استخدامه في السياق الليبي كشفت عن وجود فجوة في الأدبيات.

وهدفّت هذه الدراسة إلى استكشاف آراء الطلاب-المعلمين الليبيين الذين يدرسون اللغة الانجليزية كلغة أجنبية في قسم اللغة الانجليزية بكلية التربية حول استخدامه كمدقق كتابة آلي مدعوم بالذكاء الاصطناعي أثناء كتابة مقالاتهم والتحديات التي واجهوها أثناء استخدامه، وقد استخدم في هذه الدراسة تصميم منهج دراسة حالة الاستكشافي، وتكوّنت عينة الدراسة من 41 طالبة-معلمة ليبية مسجلة في مقرر كتابة المقالات، وتم جمع البيانات من خلال المقالات التأملية ومجموعات التركيز. وقد تم تحليل البيانات نوعياً، وكشفت النتائج أن معظم الطالبات- المعلمات ينظرن إلى "قرامرلي" بشكل إيجابي وأفادوا بأنه حسّن كتابتهن من حيث قواعد اللغة الانجليزية والتهجئة وأغنى مفرداتهن الأكاديمية وعزز جودة كتابتهن بشكل عام وزاد من ثقتهن بأنفسهن، وقد واجهوا تحديات أثناء استخدامهن له تمثلت في المشكلات التقنية وتكاليف الاشتراك واختلافات اللغة والاعتماد على التقنية، وتفتح هذه الدراسة آفاقاً لمزيد من البحث حول تأثيره على مهارات الكتابة لطلاب اللغة الانجليزية كلغة أجنبية.

الكلمات المفتاحية: الذكاء الاصطناعي، مدققات الكتابة الآلية، الطلاب-المعلمون، اللغة الإنجليزية كلغة أجنبية، "قرامرلي".

Utilizing Grammarly as an AI-Powered Automated Writing Checker: Libyan EFL Student-Teachers' Perceptions

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Abstract

Grammarly, one of the AI-powered automated writing checkers, checks EFL writers' text, identifies inaccuracies, and provides feedback on how to correct them. Although many studies investigated and evaluated Grammarly in different contexts, a review of currently published research on using Grammarly in the Libyan context revealed a gap in the literature. Thus, this study aimed at exploring Libyan EFL student-teachers' perceptions on utilizing Grammarly as an AI-powered automated writing checker while writing their essays and the challenges they faced while using it. Exploratory case study design was the chosen research design. The participants were 41 Libyan student-teachers taking an essay writing course. Data were collected through reflective essays and focus groups. Data were analyzed qualitatively. Findings revealed that most of the student-teachers perceived Grammarly positively and reported that it improved their grammar, spelling and mechanics, enriched their academic vocabulary, enhanced their overall writing quality, and increased their confidence. Their negative perceptions were over-reliance, Grammarly's limited features, and the need for teacher feedback. Technical issues, subscription costs, language nuances, and dependency on technology were their challenges while using Grammarly. This study's results open doors for further research on the impact of Grammarly on EFL writers' writing skills.

Keywords: Artificial Intelligence (AI), automated writing checkers, EFL student-teachers, essay writing, Grammarly.

Introduction

Writing is the productive skill that many EFL students find challenging to develop because it requires mastering cognitive and language skills. Effective writing requires thought-provoking content, rhetorical ability, language competence, and accurate use of the language (Lim &

Phua, 2019). The difficulty EFL students find in writing is not only a result of being unable to express their ideas in English in an accurate academic essay format, but also a result of being incompetent in grammar, spelling, and punctuation (Fairbairn & Winch, 2011; Hanauer, Sheridan, & Englander, 2019; Fitria, 2021; Maharani, 2018). EFL students' lexical semantic errors usually involve confusion of sense relations, such as in near-synonyms, hyponymy, and homonymy relations (Letsoela & Matlosa, 2022). They also include collocation errors and stylistic errors that are related to redundancy, underspecification, and translation (Letsoela & Matlosa, 2022).

Similarly, research studies published in the Libyan context have shown that many Libyan EFL university students encounter difficulties while writing essays in English. For instance, Alsied, Ibrahim, and Pathan (2018) investigated the main errors the Libyan EFL students at Sebha University commit while writing in English and found that their errors were in grammar, mechanics, and spelling. They also found discourse and lexical errors. Similarly, Milad, Almalul & Lawej (2021) examined the difficulties Libyan EFL students at Elmergib University face in academic writing and what caused those academic writing difficulties. Their results showed that they encountered difficulties in vocabulary, grammar, spelling, punctuation, and style rhetorical problems. Demotivation, writing deficiency, idea scarcity, and reading neglect were found as the main causes of those difficulties. In a recent study, Aldabbus and Almansouri (2022) conducted a study on the difficulties some university students face in academic writing and the factors affecting their academic writing skills. Their results shown that difficulty in finding and selecting the suitable academic words, struggling with the development of strong thesis statements, issues in their organization of ideas, and writing coherent paragraphs were the challenges they face while writing in English. Lack of resources, low levels of English language proficiency, and having no opportunities for writing practice were reported as the main factors influencing students' writing. In a more recent study, Hadia (2023) conducted an observational case study that investigated the challenges the students of English department at the Faculty of

Languages and Translation at Al-Zytuna University faced while writing academic essays in English. Data was gathered through classroom observations and essay writing analysis and then analyzed qualitatively. The study's findings revealed that the challenges they faced were in finding information, organizing their ideas, and in achieving coherence. The researcher stated that their lack of knowledge of different the types of essays, paragraph organization, and coherence, and their low levels of language proficiency were the factors behind their difficulties.

One solution to help EFL students overcome their problems is by utilizing automated writing checkers that employ Artificial Intelligence (AI) and natural language processing (NLP) technologies (Li, Huang, Wu, & Whipple, 2024). These advanced software tools known as AI-powered automated writing checkers assist EFL students in improving their essays by providing timely feedback that students use to finish their different academic tasks (Jen & Salam, 2024; Lim & Phua, 2019). Utilizing AI-powered automated writing checkers in EFL academic writing classes help EFL students recognize their errors and mistakes as they detect their grammatical, spelling, and punctuation errors as well as their contextual inaccuracies (EFL Cafe, 2024; Zhang, Zhu, & Zhang, 2024). This leads EFL students to enhance their written performance by correcting their errors and mistakes using the tools' real-time feedback and personalized suggestions.

Recent technological advancements resulted in the emergence of several effective AI-powered automated writing checkers, such as *Grammarly*, *ChatGPT*, *ProWritingAid*, *LanguageTool*, *Virtual Writing Tutor*, and *QuillBot* (Cafe, 2024). Grammarly was launched in 2009. It is one of the AI-powered automated writing checkers that checks students' grammar, spelling, punctuation, and style and provides personalized feedback and suggestions that improve students' ideas and written work whether its academic or for communication. It is available as an app for IOS and Android and can be used with Microsoft Word as a plugin. It is claimed to be the most widely used writing checker by EFL students, especially with sloppy writers (Grammarly, n.d.). There are two versions of Grammarly to users to choose from: the free version (Grammarly Free) and the paid

version that is known as the Grammarly Premium. Its features include Grammar Checker, Plagiarism Checker, Citation Generator, Essay Checker, Paraphrasing Tool, AI Writing Tools, Tone Detector, and Style Guide (Grammarly, n.d.).

Review of current literature showed that interest in Grammarly is growing. Some researchers investigated the Premium version's impact on students' writing and reported that Grammarly had a positive impact on students' writing as it checks their spelling and grammar, corrects errors in punctuation and capitalization, and runs on an AI system that analyses their sentences giving the students timely feedback (Fitria, 2021; Ummah & Bisriyah, 2022). The findings of the studies that investigated the free-version effectiveness revealed that Grammarly improved students' writing skills (Guo, Feng, & Hua, 2021; Karyuatry, 2018; Pratama, 2020), instilled students' confidence (Alotaibi, 2023), and saved their time (Nova, 2018). Some studies specified Grammarly's shortcomings in not being able to provide direct feedback when internet service is unstable (Pratama, 2020; Fitria, 2021), giving inaccurate feedback (Dodigovic, 2021; Fitria, 2021; Nova, 2018; Pratama, 2020), and the potential of overreliance on it (Alotaibi, 2023).

Findings of recently published studies on students' perceptions of Grammarly emphasized positive perceptions of EFL students of Grammarly (Dwei, 2022; Fahmi & Cahyono, 2021; Hidayah & Irawati, 2024). For instance, Fahmi and Cahyono (2021) investigated the perceptions of undergraduate students on the use of Grammarly and teacher feedback on their writing. The participants were 26 undergraduate students of the Faculty of Law who were taking English for Specific Purposes (ESP) writing course. Data were gathered through questionnaires and their TOEFL scores. Questionnaire data were analyzed quantitatively whereas TOEFL scores were used to identify students' levels. Their results demonstrated students' positive perceptions on using Grammarly and teacher feedback together. The researchers highlighted that the students' English proficiency levels did not affect their perceptions as the positive responses were given by both those with high level of English proficiency and those with low level of

English proficiency. They concluded that blending automated writing feedback and teacher feedback was helpful to students and teachers.

Dewi (2022) conducted a study that explored the perceptions of students on the effectiveness of Grammarly as an automated writing evaluation. The participants were 75 EFL students who were taking a writing class and using Grammarly. Data from questionnaires were analyzed quantitatively whereas data from interviews were analyzed qualitatively. Her results showed that the participants had positive perceptions and their perceived advantages included minimizing errors as it helps in identifying and correcting grammar, spelling, punctuation, and word choice errors as well as improving their paraphrasing skills. The students' negative perceptions were having limited features in the free version of Grammarly, being expensive in the Premium version, and not being accessible when its offline.

In a recent study, Hidayah and Irawati (2024) conducted a case study at Universitas PGRI Jombang that explored English Education students' perceptions of Grammarly. Twenty-three students who were enrolled in essay writing classes responded to a questionnaire that was distributed via Google Forms whereas 4 students participated in structured interviews. The findings showed that the students perceived Grammarly positively and considered it as an effective aid while writing essays. They identified its user-oriented design, helpful suggestions, clarity of explanations, precise grammar corrections, and quick corrections as the most helpful features as they improved their writing and enhanced self-confidence.

Another study explored 120 EFL students' perception of Grammarly was conducted at the University of Muhammadiyah Prof. Dr. Hamka Jakarta by Khonirin & Roslaini (2024). They used a quantitative approach and administrated a 20-item 5-Likert Scale close-ended questionnaire that was distributed via Google Forms. Data was analyzed using Microsoft Excel generated averages. Their findings revealed that even though the students perceived Grammarly as a useful tool and conveyed that it raised their writing confidence and skills, they expressed their worries that Grammarly might lead to over-reliance. Khonirin and Roslaini (2024) also highlighted

the effectiveness of Grammarly as a “supplementary tool in EFL writing instruction” and recommended to be utilized along with teacher feedback (p. 192).

As can be seen, the reviewed studies were conducted in different contexts and the findings of all studies shown EFL students' positive perceptions and that they highly appreciated Grammarly's features. This brief review revealed a population gap as EFL student-teachers in general and Libyan EFL student-teachers specifically are underrepresented in research on perceptions of utilizing Grammarly as AI-powered automated writing checker. Even though interest in Grammarly is increasing, research on Grammarly in the Libyan context seems to be scarce. Thus, the purpose of this study was to fill a gap in the literature by exploring the perceptions of Libyan EFL student-teachers at one of the well-known Libyan public universities on utilizing Grammarly as an AI-powered automated writing checker and the challenges they faced while using it. The study aimed to achieve the following objectives:

1. Explore the Libyan EFL student-teachers' perceptions on utilizing Grammarly as an AI-powered automated writing checker in the essay writing process.
2. Identify the Libyan EFL student-teachers' perceived challenges of implementing Grammarly as an AI-powered automated writing checker in the essay writing process.

To achieve these objectives, two research questions were raised:

1. What are the Libyan EFL student-teachers' perceptions on utilizing Grammarly as an AI-powered automated writing checker while writing their essays?
2. What are the Libyan EFL student-teachers' perceived challenges while using Grammarly as an AI-powered automated writing checker while writing their essays?

This paper reports the findings on the perceptions of Libyan student-teachers on using Grammarly as an AI-powered writing-assistant tool while writing academic essays and identifies the challenges they faced while using the application. The significance of this study lies in that the findings lay the

ground for our ongoing study on the impact of Grammarly on the student-teachers' writing. The findings may also highlight new areas for other interested researchers, especially for those who are interested in AI-powered applications and how they are utilized in TEFL education programs in general and in EFL writing instruction. In addition, the findings can inform EFL teachers and educators on utilizing AI-powered writing tools and encourage them to implement them as essential or supplementary tools.

Methodology

The exploratory case study design was chosen to explore the Libyan EFL student-teachers' perceptions of using Grammarly as an AI-powered writing-assistant in the essay writing process. Case study is defined as "an empirical inquiry that investigates a contemporary phenomenon (the 'case') in-depth and within its real-world context" (Yin, 2014, p. 16). It was chosen as the precursor to a large-scale study on the impact of Grammarly on the student-teachers' writing.

The study was conducted at the English Language Department at the Faculty of Education at the University of Tripoli. The department offers a TEFL Teacher Education program in which students take courses that develop their language proficiency and prepare and train them to become effective EFL teachers. Thus, in this study, they are identified as student-teachers. The target population was Libyan student-teachers who were taking the Writing 3 course that trains them on writing academic essays. The participants were forty-one female student-teachers. All participants were females because the site is identified as girls-only institution.

Libyan student-teachers who were taking the Writing 3 course learned how to write essays in different genres. Whenever they submitted their essays, it was observed that they, most of the time, submitted essays with issues in grammar, spellings, mechanics, and other stylistic issues. Consequently, as teacher educators and writing instructors, we had to consider providing the student-teachers with AI-powered writing tools that provide automated written corrective feedback to assist them through their essay writing process. Since Grammarly is considered the most popular students' assistant while writing essays, they were asked to use Grammarly

to improve their essay writing skills before submitting their final drafts. They were first trained on how to use it in class and then were asked to proofread and edit their essays using Grammarly as an AI-powered writing checker.

Data were collected through reflective essays and focus groups. Written reflections were chosen as the first data collection tool because writers usually explore their own beliefs, experiences, and subjectivities with a critical perspective through their self-reflections (Cohen, Manion, & Morrison, 2007). By the end of the semester, student-teachers were asked to write reflective essays in which they were required to reflect on the whole semesters' essay writing experience in paragraphs. The essay instructions stated each paragraphs' content among which they were asked to write their reflections on Grammarly. The prompt of the paragraph on Grammarly stated:

6th body Paragraph: Your impression about using Grammarly and other proofreading tools

Write a paragraph about your experience with using Grammarly answering the following questions in details: How was it like to use Grammarly and other proofreading tools to correct your mistakes and error? Was it helpful? Why? Why not? Did using Grammarly and other proofreading tools help you improve your writing? Why? Why not? Explain with examples.

Focus groups were chosen as the second data collection tool to have group interactive interviews instead of having question-and-answer individual interviews "to elicit more of the participants' points of view" (Mertens, 2010, p. 240). Another reason behind choosing focus groups is that Libyan Female student-teachers usually do not prefer participating in individual interviews. The Focus group discussion began with three main questions that elicited more questions from the student-teachers' responses. The questions were: (1) After using Grammarly as an AI-powered automated writing checker for the whole semester, what do you think of Grammarly?, (2) How do you perceive using Grammarly throughout the

essay writing process?, and (3) As a Libyan EFL student-teacher, what are the challenges you faced while using Grammarly?

To adhere to research ethics, the student-teachers were given informed consents that explained the research procedures and were informed that they had the right to withdraw at any time. They were also assured that anonymity will be maintained throughout data collection and analysis as well as when publishing the research article. To ensure anonymity, all participated student-teachers were given codes to be used instead of names, ex. ST1 and they were used in the findings section as (ST1, 2024).

After getting the signed consents from the student-teachers, data collection procedures began with gathering the reflective essays and ended with conducting focus group meetings. By the end of the course, the student-teachers submitted their reflections that included a number of points to reflect on among which the experience of using Grammarly as an AI-powered writing assistant. Then, two focus groups were conducted in which student-teachers were asked questions that elicited the student-teachers' views and how they perceived Grammarly and the challenges they faced while using it.

Data were mostly analyzed qualitatively. A thematic inductive approach was used which began by line-by-line reading and memoing, and then ended with coding (Coffey & Atkinson, 1996). Data analysis began with analyzing the data that were gathered through the reflective essays and then data that were gathered through the focus groups. A final phase of data analysis was by creating themes from the codes emerged from the reflective essays and focus groups. Numbers were only used to specify the numbers of student-teachers who used the different AI-powered writing checkers.

Findings

To achieve the research objectives, two research questions were raised to investigate the Libyan student-teachers' perceptions of utilizing Grammarly throughout their essay writing process and identify the challenges they faced while using it. When students were asked about the AI-powered automated writing checkers as tools they use while writing their

essays, data analysis revealed that most of the student-teachers used Grammarly because it was assigned by their course instructors. Only four of the student-teachers reported not using any of the writing checkers. Thirteen of the student-teachers admitted using other AI-powered tools to check their essays along with Grammarly: six of them used Proofreader, four of them used QuillBot, two of them used ChatGPT, and only one of them used Fixy. When they were asked how frequently they used Grammarly, twenty of the student-teachers who used Grammarly indicated that they “always used” the app, which reflects a strong commitment. In the meantime, fifteen of them reported that they “sometimes used” it, which suggests occasional commitment. On the other hand, only four of the student-teachers stated that they have “never used” Grammarly. In the following section, the findings are presented in accordance to their relevance to the raised research questions.

Libyan EFL Student-Teachers' Perceptions of Using Grammarly

The first research question inquired about the student-teachers' perceptions on utilizing Grammarly as an AI-powered automated writing checker. Data analysis showed that Libyan EFL student-teachers mostly had positive perceptions of Grammarly and appreciated its free features. One of student-teachers' wrote:

As EFL students, it is natural to have grammatical mistakes, and as students in a writing course, we need to avoid these mistakes. When we write a complete essay, our teacher asked us to check for grammatical mistakes using Grammarly and other writing tools. This is one of the advantages of this course, as we can submit our assignments without any mistake, ensuring their accuracy. (ST3, 2024)

They considered the experience of using AI-powered writing tools to eliminate their mistakes and errors and provided suggestions that improved their writing as a “transformative” experience as one of the student-teachers wrote:

My experience in using Grammarly and other proofreading tools has been transformative. I used these tools to enhance the quality of my

writing, as these tools provided support in identifying my mistakes and issues and then providing suggestions for better words and phrases. (ST5, 2024)

Even though student-teachers mostly reported positive views on Grammarly, there were a number of points they perceived as the negative side of this automated writing checker. The following sections will present the student-teachers positive and negative perceptions of Grammarly.

Student-Teachers' Positive Perceptions

Data analysis revealed that most of the student-teachers perceived Grammarly positively and reported that it improved their grammar, spelling and mechanics, enriched their academic vocabulary, enhanced their overall writing quality, and increased their confidence.

Improved Grammar, Spelling, and Mechanics. Most of the student-teachers believed that Grammarly improved their grammar, spelling, and mechanics. They explained that they were able to identify a number of grammatical, spelling, and punctuation issues that they usually overlook. As put in one of the student-teachers' words:

Whenever there is any problem in grammar, spelling or in punctuation, Grammarly will notify me to correct it. It usually flags the mistakes so that I can easily correct them and spontaneously. I've found this to be especially valuable when drafting my essays using technology rather than by just using handwriting because it's easy for me to overlook my mistakes (ST12, 2024).

Enriched Academic Vocabulary. Nearly most of the student-teachers believed that Grammarly enriched their academic vocabulary. They highlighted how Grammarly offered synonyms and alternative phrases that they used to replace their "basic words" with "more sophisticated words" (ST7, ST10, & ST20, 2024). The examples that were mentioned by most of them are words like "good", "interesting", and "important". They explained that they overly used "interesting" and "important" but Grammarly suggested more sophisticated words such as "intriguing" and "significant". They added that Grammarly enriched their academic vocabulary because the more it highlighted their errors and suggested words they rarely use or new

words that are more suitable for their context, the more words they learned through corrections.

Enhanced Overall Writing Quality. Student-teachers admitted that utilizing Grammarly throughout their essay writing process improved their overall writing quality. One of the student-teachers explained:

I have found Grammarly and similar proofreading tools to be quite helpful in improving the quality of my writing. These tools identify my mistakes quickly and give me the chance to correct them. This makes the quality of my writing become better because there are no mistakes. The suggestions Grammarly provided me helped me refine my writing and express myself and my ideas more clearly. (ST30, 2024)

They also detailed that Grammarly gave them writing style related feedback that helped them enhance their writing. The examples they gave showed how they used “a lot of” and “many” and it helped them to replace those words with “numerous”, which gave them the chance to achieve clarity in their writing (ST1, ST15, & ST22, 2024). Finally, most of the student-teachers believed that Grammarly helped them avoid plagiarism, which enhanced their overall writing quality. They appreciated that Grammarly alerts them stating that a certain part of their writing as potential plagiarism encouraging them to rephrase the text and produce original statements with proper citation.

Increased Student-teachers' Confidence. Most of the student-teachers admitted that the instant-feedback that is given by Grammarly raised their confidence in their writing skills. They confessed that the instant alerts and real-time feedback on their grammar, spelling, punctuation, and vocabulary that helped them to correct their errors immediately increased their confidence because they felt that they submitted nearly error free essays. As put in one of the student-teachers' words, Grammarly enhanced her “confidence in [her] writing because it makes it more accurate and polished” (ST5, 2024). They also mentioned that Grammarly raised their confidence because it alerts them whenever there was a possibility of committing plagiarism. They explained that having Grammarly raise their

awareness on the issue of plagiarism minimized their fears and helped them improve their writing with confidence.

Student-Teachers' Negative Perceptions

Data analysis shown that some of the student-teachers had negative perceptions of Grammarly and reported that it leads to over-reliance, has limited features when it is free, and reveals the need for teacher feedback.

Over-relying on Grammarly. Some student-teachers believed that using Grammarly may lead to over-relying on its features, which will hinder student-teachers' ability to proofread and edit their writing independently. They thought that students will become dependent and that it might lead to being unable to write and spot errors and correct them without an electronic assistant.

Limited Features of the Free Version. Most of the student-teachers explained the differences between the Premium and Free versions of Grammarly. They stated that the free version has limited features compared to the Premium features and that it was so expensive for them to upgrade the features.

Need for Teacher Feedback. Many students admitted that the feedback that is given by Grammarly does not replace the feedback that is given by writing teachers as they give contextual personalized feedback that cannot be given by Grammarly. They also stated that there were instances when they did not understand its feedback. One of the student-teachers explained: "I really struggled with its suggestions. I didn't get why it was wrong and how I'm supposed to correct it. If this feedback was given by my teacher, I would have asked for more clarification" (ST3, 2024). Their struggles made them conclude that there is a need to combine personalized teacher feedback and Grammarly for students' greater writing skills.

Libyan EFL Student-Teachers' Perceived Challenges while Using Grammarly

The second research question inquired about what the student-teachers perceived as the challenges they confronted while using Grammarly as an AI-powered automated writing checker. Data analysis showed that technical issues, language nuances, subscription costs, and

dependency on technology as the challenges Libyan EFL student-teachers faced while using Grammarly. The following sections presents the student-teachers' challenges they confronted while using Grammarly.

Technical Issues

Analysis of student-teachers' responses revealed that the technical challenges they encountered were in that Grammarly was not user-friendly and in not being able to use it when Internet service is not stable or weak. One of the student-teachers wrote: "Although I found it difficult to use Grammarly and not as user-friendly as I hoped, I used it for basic grammar checks" (ST40, 2024). She stated that she found "QuillBot was more effective" and used it alongside with Grammarly (ST40, 2024). Also, a number of students complained of not being able to use it when their Internet was unstable or too weak.

Language Nuances

A number of student-teachers' responses revealed that they faced some difficulty in understanding what was flagged as being incorrect and the suggestions of Grammarly. They stated it many times highlighted some words or phrases stating that they were informal, while they thought that they were formal. They also explained that it asked them to change phrasal verbs and colloquial expressions to more formal words and phrases, which made them think that the new words did not express their exact ideas or feelings. One of the students explained that she used the phrase "piece of cake" and Grammarly suggested changing it, which made her feel confused (ST33, 2024).

Subscription Costs

Even though they were not asked to do so, a number of student-teachers stated that they tried to subscribe when they found that Grammarly Premium features were more effective and failed to subscribe because it was so expensive. They complained that subscription costs hindered them from benefiting from Grammarly's "more sophisticated" features (ST7, ST10, & ST20, 2024).

Dependency on Technology

Some student-teachers believed that using Grammarly made them excessively rely on its features, which made them unable to proofread and edit their writing independently. They thought that they depended on Grammarly heavily that they felt they were unable to recognize their errors and correct them without an electronic assistant.

Discussion

The study sought to explore the Libyan EFL teachers' perspectives on utilizing Grammarly as an AI-powered automated writing checker while writing their essays and the challenges they encountered while using this writing tool. The findings revealed that there was an overall satisfaction with Grammarly among Libyan EFL student-teachers even though they had come across a number of challenges. In the following section, the findings are discussed according to their relevance to the raised research questions and current literature findings.

Libyan EFL Student-Teachers' Perceptions of Using Grammarly

Libyan student-teachers reported having both positive and negative perceptions towards Grammarly. While their positive perceptions indicated a constructive and encouraging viewpoint, their negative perceptions, on the other hand, featured a critical or discouraging view.

Libyan EFL student-teachers mostly had positive perceptions of Grammarly and claimed that it improved their grammar, spelling and mechanics, enriched their academic vocabulary, enhanced their overall writing quality, and increased their confidence. This contributes to the existing body of knowledge and aligns with previous research results that were conducted in different geographical areas and cultural contexts (Dwei, 2022; Fahmi & Cahyono, 2021; Guo, Feng, & Hua, 2021; Hidayah & Irawati, 2024; Karyuatri, 2018; Khonirin & Roslaini, 2024; Pratama, 2020). Student-teachers' positive perceptions were a result of how they harnessed Grammarly's immediate feedback that helped them recognize their strengths and weaknesses and how they can tackle their areas for improvement. This aligns with what Dwei (2022) and Hidayah and Irawati (2024) explained in that Grammarly's feedback leads to minimizing errors by identifying and

correcting grammar, spelling, punctuation, and word choice errors and improving their paraphrasing skills. The student-teachers' satisfaction with Grammarly improved the quality of their writing and therefore raised their confidence as EFL writers, which correspond with the findings of Alotaibi (2023) and Hidayah and Irawati (2024) as they reported that Grammarly instilled students' confidence.

Some Libyan EFL student-teachers had negative perceptions of Grammarly that included concerns of over-reliance, free version's limited features, and the need for teacher feedback, which also align with existing literature (Alotaibi, 2023; Dodigovic, 2021; Dwei, 2022; Fitria, 2021; Fitria, 2021; Pratama, 2020; Nova, 2018). The findings of this study are in line with what Alotaibi (2023) and Khonirin and Roslaini (2024) highlighted regarding concerns towards over-relying on Grammarly, which might result in lowering students' writing performance and skills. Findings also showed that the student-teachers perceived Grammarly Free features negatively as they found them to be limited compared to Grammarly Premium features, which supports Fitria's (2021) findings. Finally, this study's findings reinforce Khonirin and Roslaini's (2024) findings regarding how the student-teachers perceived Grammarly as a supplementary tool that does not eliminate teachers' feedback. Both studies' students admitted that even though Grammarly is helping them improve their writing quality, teachers' feedback is still needed because it is personalized and contextual, which made them assert the need for combining Grammarly's feedback with teachers' feedback.

Libyan EFL Student-Teachers' Challenges of Using Grammarly

Since research on the challenges the student-teachers face while using Grammarly is limited, this study fills this gap. While utilizing AI-powered automated writing checkers truly helped EFL student-teachers in refining their writing, they reported there were significant challenges and limitations. The findings revealed that Libyan EFL student-teachers perceived Technical issues, language nuances, subscription costs, and dependency on technology as the challenges they faced. These findings agree with the previously published research results (Alotaibi, 2023;

Dodigovic, 2021; Dwei, 2022; Fitria, 2021; Khonirin & Roslaini, 2024; Nova, 2018; Pratama, 2020). Like other users of Grammarly who participated in the studies conducted by Fitria (2021) and Pratama (2020), Libyan EFL student-teachers encountered technical issues as they were not get direct feedback when internet services were unstable or weak. They also had concerns about subscription costs. These are general issues that are faced whenever technology is implemented in the EFL classroom as research has proven that software glitches to internet connectivity problems and subscription costs were among other challenges of using technology in education (Alamri, 2021; Mauliska & Karlsson, 2024). In addition, language nuances were among the challenges the Libyan EFL student-teachers encountered while using Grammarly. They claimed that Grammarly made occasional inaccuracies a teacher would not make. Their claims indicate that Grammarly cannot grasp their narrative intricacies, contextual nuances, and stylistic preferences and therefore it is overshadowing their personal style and voice, which is in line with Giray's findings (2024). They confirmed that Grammarly does not substitute teachers' feedback, which also confirms Giray's (2024) conclusions. Finally, some of the Libyan student-teachers self-confessed that they were over-relied on Grammarly and felt that it led them to being unable to recognize their mistakes and errors. This confirms the findings of Alotaibi (2023) and Khonirin and Roslaini (2024).

Conclusion

Findings showed that the student-teachers had both positive and negative perceptions. They mostly perceived Grammarly positively because it improved their grammar, spelling and mechanics, enriched their academic vocabulary, enhanced their overall writing quality, and increased their confidence. Some of the student-teachers perceived Grammarly negatively as they had concerns of overly relying on Grammarly, limited features of Grammarly Free, and their need for teacher feedback. The challenges they encountered were that they faced some technical issues, language nuances, the expensive subscription costs, language nuances, and becoming dependent on technology. Even though there were some concerns that lead to student-teachers' negative perceptions, Grammarly can be considered as

an effective application for AI-powered automated writing that help EFL writers improve their writing skills.

This study mirrors the positive perceptions of the participants of previous studies. It also contributes to the existing literature by focusing specifically on the Libyan students and the challenges they faced. For instance, the study that was conducted by Fitria (2021) showed that the students' scores were higher after using Grammarly. In this study, the participants' perceptions aligned with those findings as they reported increase in their writing quality.

The findings provide valuable insights into Libyan EFL student-teachers' perceptions of Grammarly highlighting its advantages and drawbacks as well as the challenges they encountered while using it. They demonstrate the complexity of student-teachers' experiences by revealing their dual perspectives regarding the utilization of Grammarly, which stresses the need for a balanced understanding of using AI-powered automated writing checkers. As a writing instructor, it can be suggested that EFL writing instructors can choose one of the AI-powered automated writing tools and train their students with them along with their valuable feedback. It can be concluded that the key to improving students' writing quality is in combining the teacher's feedback with the AI-powered automated writing checkers' feedback that will ensure the quality of input and students' performance.

The small sample size, reliance on self-reported data, and the nature of the student-teachers' perceptions, as it might be subjective, are the limitations of the study. Future research might involve a wider range and more diverse student-teachers or EFL writers and larger sample size. Further research is needed to investigate the effectiveness of Grammarly compared with other applications and teacher feedback. Researchers might also examine its effectiveness compared to peer feedback. As there is no complete research, this study has moved the body of knowledge on AI-powered automated writing and the utilization of Grammarly forward and opened doors for interested Libyan researchers and other researchers around the world to further investigate the issue employing a variety of research

methods and diverse participants.

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