

A case study of applying Grammarly for mastering pre-service teachers' writing skills

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Abstract

Artificial intelligence constitutes an integral component in the organization of a digital language learning environment. Grammarly offers significant advantages for pre-service teachers, particularly in improving their academic writing skills. The primary objective of this study was to analyse the influence of Grammarly on mastering the English academic writing skills of University students majoring in English. In the study, the pre-interview and post-interview were used as instruments to collect data of the writing problems in grammar, vocabulary, and spelling. The data was collected from 50 students of Pavlo Tychyna Uman State Pedagogical University (Uman, Ukraine) in the period from October 2024 to April 2025. The important issues of the study were pragmatic components of writing and language accuracy. The aforementioned issues were designed to develop criteria for writing a paper. The key criteria for the pragmatic components of writing include recognizing the differences between writing in English and one's native language, utilizing Grammarly for relevant support, considering the impact of writing on the target audience, incorporating extralinguistic elements, ensuring originality without plagiarism, and maintaining textual coherence and cohesion. The essential criteria for language accuracy include using an appropriate register, maintaining correct grammar, and selecting precise vocabulary. The findings indicate that students might use additional resources, such as Grammarly, to assist them with writing tasks. The findings of the study can be used by higher education institutions that train English future teachers in order to develop writing skills of pre-service teachers and introduce Grammarly into the educational process. Grammarly is recommended as it enhances university students' writing skills, particularly in academic writing courses. Future research could involve comparative analyses of grammar and vocabulary accuracy using Grammarly within the context of English academic writing.

Keywords

pre-service teachers, EFL, AWE system, artificial intelligence, Grammarly, writing skills

1. Introduction

With the development of international contacts, Ukraine's pursuit of joining the European Union, and the growing influence of digital technologies in education, pre-service teachers are increasingly required to acquire effective writing skills. Digital learning tools play a crucial role in this preparation, particularly in fostering English language communicative competency with a focus on writing skills.

In recent years Ukrainian education has faced significant disruptions due to the global pandemic and ongoing military conflicts [1, 2, 3, 4, 5, 6, 7, 8], however, the advancement of education through innovation and digitalization is keeping pace with modern times [9, 10, 11, 12, 13]. Higher education institutions are responsible for delivering quality education that prepares pre-service educators to compete effectively in the global job market.

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Ukrainian students can be prepared with the knowledge and skills required for advanced academic writing, including descriptive, analytical, argumentative, and critical writing. In all these cases in higher education, Grammarly is an important resource in the digital space that enhances professional competency of pre-service teachers [14, 15, 16].

Writing is a fundamental skill for English learners. It is both a highly rewarding and a particularly challenging skill to master. Today, digitalization and innovation have been leveraged to enhance the quality of writing. Although challenging to master, academic writing is an essential university skill that is rigorously assessed [17, 18, 19]. Writing, as a linguistic activity and a key objective of pre-service teachers in mastering their skills, is enhanced through the integration of digital tools, particularly Grammarly that aims to assist and support students, whether beginners or experts, in identifying and correcting writing errors at the level of spelling, grammar, punctuation, vocabulary, sentence structure, style, and engagement.

The objective of this research is to analyse the influence of Grammarly on mastering the English academic writing skills of University students majoring in English.

Consequently, this study explores how pre-service teachers utilize Grammarly prompts and their perspectives on learning English through Grammarly. Accordingly, the study aimed to answer the following questions:

1. How can pre-service teachers use Grammarly prompts to master their academic writing?
2. What problematic issues are associated with the employment of the application, and how can they be addressed?
3. What recommendations can be developed for educators to effectively use Grammarly in the learning process?

2. Literature review

Many researchers [20, 21, 22] rely on Grammarly to address communication challenges. By integrating Grammarly into their workflows, educators and students can improve customer-facing content, strengthen cross-functional collaboration, and uphold a high standard of communication on a larger scale. According to recent research [23, 24], improving writing skills through automated writing assistants like ChatGPT, YouChat, Perplexity, Gemini, Copilot and others help students address deficiencies in spelling, grammar, and style. These tools are widely used across the globe. However, while digital tools can greatly aid learning, there is also the risk of overreliance on artificial intelligence (AI), which might lead to the loss of human understanding in writing [25, 26, 27]. It is crucial to emphasize that humanity faces a risk from robo-writers, as AI can generate human-like text without true comprehension or accountability for its content.

Scientists argue that online resources facilitate the creative application of digital technologies, help identify the needs of both teachers and students, provide technological solutions, resolve technical issues, and pinpoint gaps in digital competency, consequently, preparing pre-service teachers must be done with digital technologies [28, 29]. Various applications and online platforms offer innovative digital tools that can help students moderate mediation model of writing self-efficacy [30, 31]. Among the advantages of online resources Williams and Beam [32, p. 227] found that “the use of technology motivated student engagement and participation in writing assignments and increased social interaction and peer collaboration”. The authors emphasized the importance of educators’ digital competency: “Relevant, high-quality teacher professional development on pedagogical uses of technology are urgently needed in order to promote technology-mediated writing instruction and build students’ 21st century literacy skills” [32, p. 227]. Nguyen [33] examined digital tools to promote academic writing skills. His findings highlight the significance of combining digital tools with focused instructional support to tackle both small-scale and large-scale writing challenges.

The experience of using other digital tools such as ChatGPT has demonstrated its potential to support English language learning among older individuals, who are often perceived as facing technological or linguistic challenges. Sanmuang et al. [24] emphasized that, with appropriate tools and methods, these

learners can effectively engage with ChatGPT, showcasing how diverse age groups and backgrounds can overcome learning obstacles. The success of such educational initiatives relies heavily on using the right approach and resources.

Recent research presents varied views on Grammarly in English learning. First of all, the researchers try to find advantages, weaknesses, and challenges of Grammarly application. Perdana et al. [34, p. 128] appreciated its role in improving academic writing and highlighted “the effectiveness in providing corrections and other checks to accommodate many linguistic issues in writing academic standards and the outside academic world”. Guo et al. [35] recognized the utility of AI in corrective feedback but despite its widespread use in EFL classrooms and numerous benefits, Grammarly, an automated writing evaluation (AWE) tool, remains underrepresented in AWCF studies. Thi et al. [36] noted teachers’ satisfaction with the AI writing tools that positively improved their students’ writing quality, particularly enhancing the quality of their content and organization. Rizky and Didik [37] found that Grammarly is an effective tool for teaching English writing skills and can complement traditional writing instruction. The study gathered both quantitative and qualitative data, incorporating pre- and post-test evaluations of writing skills along with surveys and interviews to assess participants’ perceptions of Grammarly. Investigating the effects of using Grammarly in EFL writing, Ebadi et al. [38] recommended EFL teachers to incorporate online grammar checkers into their writing courses as they are writing assistant tools to detect and remove English as a foreign language (EFL) learners’ grammatical errors. Koltovskaia’s [39] findings indicated that students exhibited varying levels of engagement with digital checkers. One student demonstrated higher cognitive engagement by questioning the feedback but made only moderate revisions due to limited verification of its accuracy. In contrast, the other student’s overreliance on digital checkers reflected lower cognitive engagement, leading to unquestioned acceptance of the feedback. However, this also resulted in moderate revisions to their drafts. Koltovskaia [40] pointed out that Grammarly is a complement to teacher feedback but should not be used to replace teacher feedback.

Numerous studies have been conducted on Grammarly in EFL writing, including confidence, help-seeking behavior, and user perceptions of Grammarly in higher education [41], and meta-analysis on the effectiveness of automated writing evaluation on writing quality [42].

However, despite the many advantages of using Grammarly, Dizon and Gayed [43] do not recommend it as a substitute for teacher feedback. The researchers believe that Grammarly should complement teacher feedback, enabling instructors to concentrate on higher-level writing concerns while the AWE system addresses lower-level errors [43].

3. Research methods

The research took place between October 2024 and April 2025. It employed a range of methods depending on its stage. Thus, at the initial one – pre-intervention – we applied the interview with the 15 members of the focal student group and 5 teachers of English from the Faculty of Foreign Languages, Pavlo Tychyna Uman State Pedagogical University (Uman, Ukraine). Moreover, 50 students’ written papers were analysed.

At the intervention stage, we carried out an experiment with the focal group and their teachers of English, who were introduced ‘Grammarly’ (business version) as a part of the joint project of the Ministry of Education and Science of Ukraine and the corporation ‘Grammarly’ for higher educational establishments in Ukraine. Respectively, Pavlo Tychyna Uman State Pedagogical University got 50 licenced places from October 2024 till October 2026.

At the post-intervention stage, the students’ writing achievements were scrutinised, and the research participants were interviewed once again.

4. Results and discussion

At the initial stage of the research, the students were interviewed about their writing competency. They were addressed with questions concerning their attitude to writing, the difficulties they experienced, and whether they had their own writing strategy. The student's understanding of writing was checked with the use of the following criteria for writing (table 1).

Table 1

Criteria for writing a paper.

Pragmatic components of writing	1) <i>Understanding the rhetorical differences between writing in English and Ukrainian</i>
	2) <i>Paper's idea revealed with relevant support</i>
	3) <i>Effect of writing on the targeted audience</i>
	4) <i>The paper's purpose achieved</i>
	5) <i>Extralinguistic means adequately employed if necessary</i>
	6) <i>Plagiarism avoided</i>
	7) <i>Coherence created</i>
	8) <i>Cohesion achieved</i>
Language accuracy	a) <i>Relevant register & style</i>
	b) <i>Relevant grammar</i>
	c) <i>Relevant vocabulary</i>
	d) <i>Range of grammar and vocabulary use</i>

The interview results demonstrate that 90% of students associate their writing problems only with relevant language use while writing (e.g. grammar, correct vocabulary, and spelling). Still, the analysis of the students' papers reveals that they intuitively try to achieve some of the pragmatic goals and language accuracy as well. Their vision of the writing strategy is also quite intuitive and vague. Only 2 out of 15 claimed writing to be their favourite activity (figure 1).

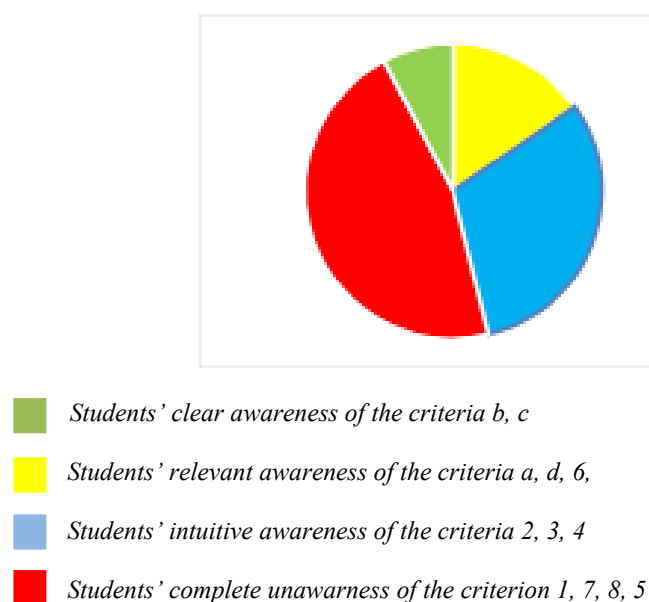


Figure 1: Levels of students' awareness of the criteria for writing.

At the intervention stage, the focal group of students and teaching staff were introduced to the business version of Grammarly and explained the range of tools they can employ to improve their writing including the generative AI. To address the research questions, we followed the group's Grammarly use to advance their pragmatic competency while writing as well as language accuracy.

From the perspective of the pragmatic approach to writing, only 15% of students employed Grammarly's AI possibilities to brainstorm the ideas for writing and organise them logically and subsequently into a structured form. The application helped the students define their audience, for instance, knowledgeable, still it could hardly help them understand the potential audience's real needs and interests. So, while discussing this issue during the English classes, the students expressed their opinions about interviewing targeted readers or analyzing their reactions, comments and feedback on social media concerning a definite topic.

Extralinguistic means like appropriate photos, font, colour of the text and others were not the point to be suggested by Grammarly. In this respect, the students and teachers relied on their knowledge from the courses "Creative and Academic Writing" and "Basics of English Writing", their personal experience and the suggestions of other Art Generating AI and ChatGPT.

On the other hand, Grammarly Premium's plagiarism checker could help the students and teachers to catch sentences and paragraphs that may need a citation. Still, this function was rarely addressed by the students (less than 12% of cases). Instead, their instructors exploited it to check how the students follow the ethical norms.

The largest references to Grammarly were associated with improving the students' language accuracy in terms of grammar and vocabulary use, appropriate register and tone for writing. In the period between October 2024 and April 2025, the students accepted from 68 to 72.1% of suggestions provided by Grammarly (figure 2).

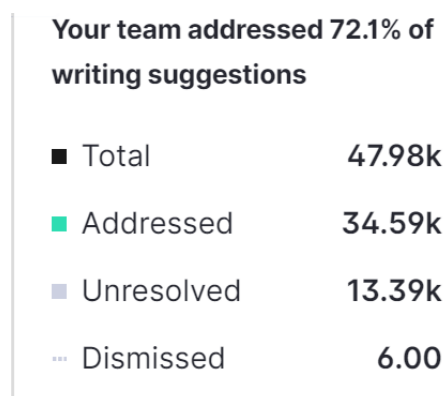


Figure 2: Students' reactions to Grammarly's suggestions (a screenshot from the application).

As the screenshot given above (figure 2) demonstrates, a small amount of Grammarly suggestions were dismissed. To clarify this point the students were questioned, whether they checked what the application suggested or accepted it without deep consideration. The students expressed their reliance on Grammarly in this matter without thorough examination of the provided suggestions. We consider this tendency to be quite threatening for the students' learning process and a significant disadvantage of application's use. As Grammarly operates a definite set of grammar and vocabulary use patterns, in some cases taking its recommendations for granted can lower the level of students' self-expression and reduce the variety and richness of the language tools, which students master in their courses of English-related subjects. Still, 80% of students and all the teachers found the application to be quite useful for mastering core grammar and vocabulary.

Overall, the benefits, risks, and problematic issues associated with Grammarly use in the English learning process can be generalized as follows (table 2).

At the post-intervention stage, the participants of the experiment were interviewed once again concerning their impressions of the application employment in the learning process. In general, they provided positive feedback although there were some recommendations. Firstly, to address the problematic issues associated with Grammarly use, teachers are recommended to explain their students the scope of its effectiveness with the necessity to analyse and scrutinise its suggestions and develop more trust in personal knowledge and competencies in English. Secondly, it should be noted that

Table 2

Advantages and challenges of grammarly use.

Advantages	Challenges
Interaction	Free access limitation
Time saving	Contextual limitation
Wide availability	Multilinguistic limitation
Error detection	Online-enabled dependence
Style suggestion	Failure to understand idioms or other stylistic figures
Word choice improvement	Misunderstanding of author's individual style
Relatively correct English use prompts	Weekly comparisons with the performance of other team members (ethical issue)

Grammarly can partially help master the pragmatic components of writing. Thus, it is highly advised to practice them in the courses of English-related subjects and writing-related ones.

The analysis of the students' works demonstrated enhanced levels of productivity, grammar and vocabulary use with the tendency to reduce the Grammarly's recommendations from month to month, which proves that the application helped the students to strengthen their writing competency in terms of language accuracy (table 3).

Table 3

The influence of Grammarly on students' writing between October 2024 and April 2025.

Months	Students' productivity (%)	Grammar use recommendations (%)	Vocabulary use recommendations (%)
October 2024	25.5	42.3	39.5
November 2024	27.6	41.2	37.5
December 2024	28.5	39.5	34.5
January 2025	30.1	38.5	32.5
February 2025	32.5	35.7	30.2
March 2025	33.8	36.0	29.8
April 2025	35.5	33.5	28.1

Thus, it is obvious from the table that Grammarly has positively influenced the dynamics of students' language accuracy development as they required less application's help while writing their academic pieces. During the post-intervention interviews, the learners claimed that their confidence in writing rose significantly, especially when they realized that Grammarly is only an assistant which requires their own inclusion in the process of mastering their language skills.

5. Conclusions and perspectives for further research

This study demonstrates how Grammarly can support English language learning for pre-service teachers who are often perceived as facing digital and writing difficulties. It illustrates that, with appropriate tools and strategies, the future English teachers can effectively engage the effective writing with Grammarly, showcasing how they overcome the barriers in productivity, grammar, and vocabulary use. The research underscores the importance to understand the benefits, limitations, and challenges associated with using Grammarly as an online, cloud-based writing assistant that checks writing. Pre-service teachers should receive training in technology, Internet literacy, and English proficiency to effectively utilize Grammarly prompts.

In response to the first research question, participants viewed Grammarly positively for its impact on their academic writing. They appreciated the ability to interact with AI, save time, and access a wide range of vocabulary and word choices. Additionally, they trusted Grammarly's suggestions and were comfortable adopting its writing style, reducing their concerns about making mistakes. Regarding the second research question on problematic issues, participants indicated that while they aimed to achieve

certain pragmatic goals and maintain language accuracy, their approach to writing strategies remained largely intuitive and unclear. In response to the third research question there were developed some recommendations to effectively employ Grammarly in the learning process. First of all, it is highly advised to address the problematic issues associated with Grammarly use, meaning the instructors should explain their students the scope of its effectiveness with the necessity to analyse its suggestions and develop more trust in personal knowledge and competencies in English. Thus, building a relevant level of students' responsibility and accountability for their writing can be achieved. Secondly, it should be noted that Grammarly can partially help master the pragmatic components of writing. Thus, it is preferable to practice them in the courses of English-related subjects, especially writing-related ones. Apart from that, special workshops and seminars can be conducted to focus on mastering specific pragmatic soft skills.

This study demonstrates that, with appropriate approach to Grammarly use, pre-service teachers can effectively enhance their writing skills. It underscores the importance of the right tools for the success of such educational initiatives. Future research could involve comparative analyses of grammar and vocabulary accuracy using Grammarly within the context of English academic writing.

Declaration on Generative AI

The authors have not employed any generative AI tools.

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