


Using Grammarly in Enhancing Students' Grammatical Accuracy in English Writing: A Case at a Private College in Hanoi

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ABSTRACT

Keywords: Automated Writing Evaluation, Grammarly, writing skills, grammatical accuracy

Writing is regarded as a hard-to-learn skill in English, and achieving grammatical accuracy in writing is considered challenging for most English learners. As technologies advance, Automated Writing Evaluation (AWE) tools have increasingly been implemented in English language education to enhance learning outcomes. As an AWE assistant, Grammarly has been found beneficial in improving English learners' writing skills. This study aimed to investigate the effectiveness of using Grammarly in enhancing learners' grammatical accuracy in writing. The study utilized a case study design with qualitative and quantitative data collected from thirty-two second-year college students. Learners' writing assignments were analyzed using surface structure taxonomy followed by a survey questionnaire to get quantitative data for the research. Qualitative data was provided through a focus-group interview. The findings revealed a reduction in learners' grammatical errors after Grammarly intervention and their positive attitude toward using Grammarly to improve their English writing. Afterward, there were several recommendations for teachers to foster their students' English writing skills.

Introduction

Writing is undeniably an essential skill in English learning. According to Sharma (2004, as cited in Fitria, 2021), writing is one of the productive skills for learners to achieve in order to ensure communicative competence. However, writing is seemingly challenging and demanding for most English learners. Brown (2001) states that writing requires a process of thinking, drafting, and revising with specialized skills. Similarly, Faller (2018) and Maharani (2018) indicate that it is a difficult task involving cognitive and linguistic abilities.

Empirical studies have pointed out a new trend of using Automated Writing Evaluation (hereafter referred to as AWE) software has emerged in English language teaching and learning. More importantly, the application of AWE tools has been found to be effective in enhancing learners' writing skills. Bailey and Lee (2020) indicate that the development of AWE tools has

enabled language learners to receive feedback in terms of language, content, and automated scores. Furthermore, O'Neil and Russell's (2019) research emphasized that Grammarly was a supporting tool that gave learners grammatical feedback in their writing. Similarly, Fitria (2021) points out that Grammarly could foster students' writing performance.

As the current literature has indicated, undergraduate students encounter numerous challenges in writing skills ranging from micro to macro dimensions (Faisal & Carabella, 2023). The former dimension refers to linguistic features known as grammar, vocabulary, and sentence construction while the latter is associated with content, idea generation and development, organization, and coherence (Yan, 2016). Noticeably, the students at the researcher's institution frequently make mistakes at the micro level in their writing. To illustrate, they keep using the base form of the verb as in "*He go to school.*" or often misuse the verb *tobe* as in "*I'm come from Hanoi.*". In addition, some students struggle with selecting an appropriate word to denote a particular meaning. For example, in the sentence "*I think the worst thing about the job is the many things to do.*", the expression "*many things to do*" should be replaced by "*heavy workload*" to make it understandable. From the above-mentioned issue, there is a need for an AI-powered tool to assist learners in tackling their writing difficulties.

From the above, this research was conducted to investigate the effectiveness of using Grammarly in fostering students' grammatical accuracy in writing and their attitude toward the intervention in English classes.

Literature review

Writing

Peter and Singaravelu (2020, as cited in Phan, 2023) explain that writing is a tool for self-expression, communication, information interpretation, recording experiences, and effective learning. In Nunan's (2003, as cited in Tran, 2024) viewpoint, writing is defined as a mental process of inventing, articulating, and organizing ideas into statements, sentences, or paragraphs that are clear and understandable to readers.

Writing skills play a paramount role in English learning. Bello (1997, as cited in Nguyen & Huynh, 2023) demonstrates that writing skills can enhance language acquisition since practicing words, sentences, and paragraphs by writing can help English learners communicate ideas effectively and reinforce grammar and vocabulary knowledge. From Asmuti's (2002) viewpoint, language learners can formulate their ideas systematically and logically by mastering writing skills. Moreover, Al-Jumaily (2015) emphasizes that writing, among the four language skills, is the mirror that reflects an individual's language knowledge and ability; hence, language learners should work hard to master it.

From the above, writing can be understood as a method of conveying ideas or thoughts through a system of symbols or letters. Additionally, writing is considered an essential skill in language learning that requires language learners' efforts and hard work to achieve competence.

Automated Writing Evaluation (AWE) tools

AWE innovation has been a growing area in language teaching and learning. Dong (2023), in his research, mentions numerous AI-powered writing tools such as Grammarly, Turnitin, ProWritingAid, Qillbot, Hemingway Editor, WriteLab, Scribens, and AutoCrit. Studies have shown the merits of AWE tools implementation in English language classes for teachers and

learners. Feedback from AWE tools is beneficial for learners to modify their writing immediately, and it can help reduce teachers' workload in evaluating their students' writing (Chou et al., 2016). In addition, Brinkman et al. (2020, as cited in Dong, 2023) developed a writing tool that provided personalized feedback to learners of an introductory writing course. The report indicated the tool effectively assisted learners in improving their writing skills, and the learners positively perceived the intervention. Moreover, Liu et al. (2020) report that a writing tool developed with his colleagues was beneficial in upgrading their students' reasoning skills and was well-received by students.

Despite the potential of AWE application in English language classes, there are several concerns, one of which is learners' adaptation to AWE tools. Dong (2023) indicates that students are used to receiving feedback from human instructors, so they are likely to find it difficult to understand and apply the feedback from AI systems. Gao et al. (2021) claim that students tend to revise their writing work based on feedback from their teachers rather than from AWE tools. However, the authors also note that students are likely to change their writing when they receive feedback from a human instructor and an AI tool.

From the above, there is no doubt that AWE intervention offers merits to both teachers and students. However, the application of the AWE tools in education should be approached with ongoing efforts, support, and guidance from human instructors to maximize their effectiveness.

Grammarly

Harris et al. (2003) emphasize that writing is a communication tool that involves sub-skills such as spelling, punctuation, and grammar. Moreover, grammar is an undoubtedly important component of writing since grammatical accuracy helps ensure the writers' intended meaning and avoid misunderstanding in communication (Lush, 2002; Larsen-Freeman, 2003).

Grammarly is an AWE tool Lytvun and Alext Shevchenk created in 2009 (Pratama, 2020, as cited in Faisal & Carabella, 2023). Currently, Grammarly is available as an app that users can install on their computers or mobile phones and as a browser extension that can be accessed via <https://www.grammarly.com/>. Users can create a Grammarly account by using their Gmail address. Figure 1 illustrates the interface of Grammarly when users successfully sign in.

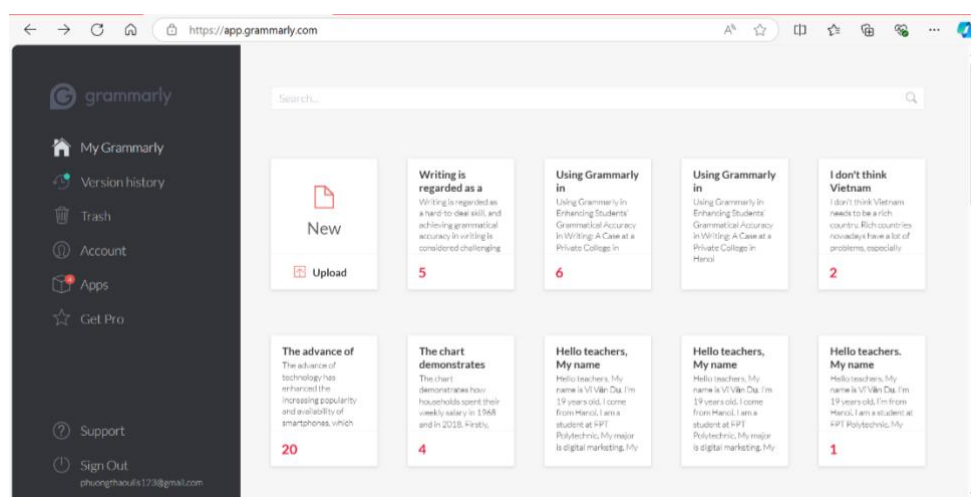


Figure 1. The interface of Grammarly

To have a writing work checked, users can either click the “New” option to type or paste their texts or upload their writing with the “Upload” function. Afterward, the system would scan, check, and provide corrections and suggestions on the parts that need improvement in the document. Noticeably, Grammarly can identify errors in six categories: (1) spelling, (2)

grammar, (3) punctuation, (4) sentence structure, (5) style, and (6) vocabulary enhancement (O’Neil & Russell, 2019).

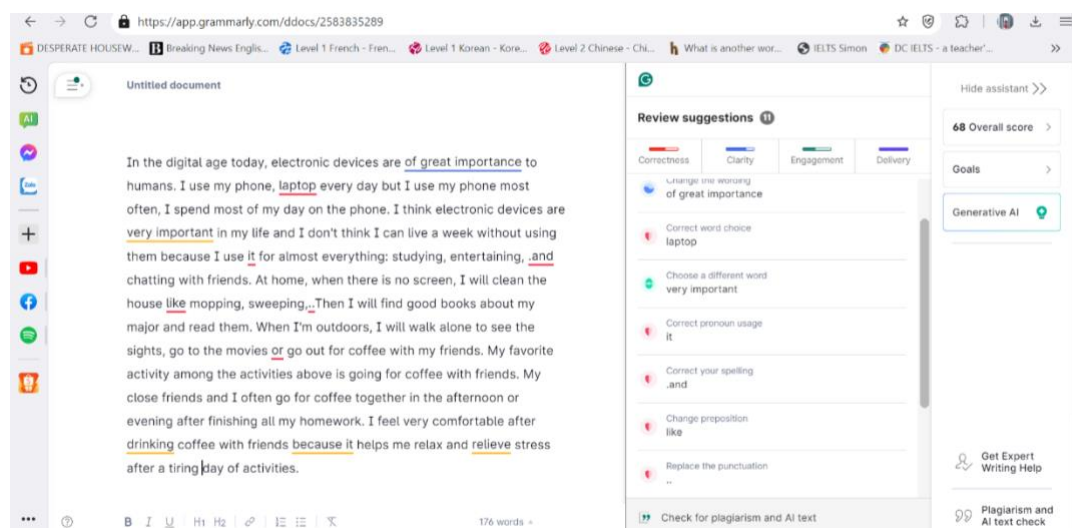


Figure 2. The interface of Grammarly as the evaluation of a writing work is in progress

Grammarly offers users two service options, free and premium. The free grammar check service provides access to a limited number of features focusing mainly on the three aspects known as spelling, grammar, and punctuation (Fitria, 2021). However, the premium service option, which charges users a certain amount of fee, offers access to all features and several advanced features in addition to the ones provided by the free checker version. In this research, Grammarly’s free check service was chosen and suggested to the participants.

Grammarly has been reviewed as one of the most accurate online grammar checkers (O’Neil & Russell, 2019). The system can automatically analyze and correct a wide range of grammatical errors, which is beneficial for students struggling with English grammar rules and spelling (Nova, 2018; Ummah & Bisriyah, 2022). In the same line, Ghufon (2019) highlights the positive contribution in reducing errors when using Grammarly software in EFL writing classes.

Surface strategy taxonomy

Dulay et al. (1982) classify grammatical errors into four categories including (1) linguistic category taxonomy, (2) surface strategy taxonomy, (3) comparative taxonomy, and (4) communicative taxonomy. Among these four categories, surface strategy taxonomy (also known as surface structure taxonomy) was selected as the fundament for this research. The taxonomy of the surface structure mainly focuses on how the mechanisms of linguistic organizations are altered (Maniam & Rajagopal, 2026). Moreover, Aziz et al. (2020) claim that analyzing errors based on the surface strategy taxonomy may offer us a glimpse of the student’s cognitive process underlying their constructions of a target language system.

According to the surface structure taxonomy, grammatical errors are segmented into four categories including omission, addition, misformation, and misordering. The four categories are explained in detail in Table 1 hereafter.

Table 1.

Four types of errors in surface strategy taxonomy

| Types | Explanations |
|---------------------|---|
| Omission | <p>Omission occurs when a required linguistic item is omitted in the sentence (Maodilao & Hidayat, 2021). Utami and Mahardika (2023) indicate seven subtypes of omission such as prepositional omission, article omission, <i>tobe</i> omission, conjunction omission, marker omission, verb omission, and pronoun omission.</p> <p>Example: <i>“He wash the dishes.”</i> – is an example of pronoun omission. The marker <i>-s/-es</i> of the present verb for the third-person singular subject <i>he</i> was omitted in the sentence.</p> |
| Addition | <p>Addition errors refer to the presence of an element or form that must not appear in a well-formed utterance or sentence (Maodilao & Hidayat, 2021). There are three subtypes of addition known as regularization (the rules used for irregular cases are applied to those exceptions to the rules), double-making (a language feature is marked at two levels), and simple additions (errors that are neither regularizations nor double-makings).</p> <p>Examples: <i>“He sees three mouses running in the kitchen.”</i> – is an example of regularization since the marker <i>-s/-es</i> for plural nouns was wrongly applied to the word <i>mouse</i>, which is an exception to the rule (the correct form is <i>mice</i>). <i>“I didn’t wanted to be a member of this team.”</i> – illustrates a double making error. There is no need to use the past simple form of <i>“want”</i> after auxiliary <i>“didn’t”</i>. <i>“You should to see the doctor.”</i> – exemplifies a simple addition error as the addition of <i>“to”</i> is not necessary after <i>“should”</i>, a modal verb.</p> |
| Misformation | <p>Misformation errors refer to the use of the wrong form of a morpheme in an utterance (Maodilao & Hidayat, 2021). There are three types of misformation errors including regularization (a regular marker is used for an irregular one), archi-forms (the selection of a member of a class or forms to represent others in the class), and alternative forms (when the writer fails to construct proper forms).</p> <p>Examples: <i>“Last night, he readed a book before going to bed.”</i> – illustrates a regularization error when the <i>“-ed”</i> ending was added to the verb <i>read</i>, an irregular verb. <i>“That roses are so beautiful.”</i> – is an example of archi-form error as <i>“that”</i> was used instead of <i>“those”</i>. <i>“those”</i> is correct in this case. <i>“I swum after he had went home.”</i> – exemplifies an alternative form error because the writer constructed an inaccurate form of the past simple verb <i>“swim”</i>. It should be <i>“swam”</i>.</p> |
| Misordering | <p>Utami and Mahardika (2023) explain that misordering errors occur when a certain part is misplaced in a sentence.</p> <p>Example: <i>“He is dating a girl beautiful.”</i> – illustrates a misordering error since the adjective <i>“beautiful”</i> was misplaced. It must precede the noun <i>“girl”</i> according to the English rules.</p> |

Perception

In psychology, the term perception has been defined by many scholars. In Solomon’s (2019) words, perception indicates how an individual makes meaning through the comprehension and interpretation of a stimulus. Sharing the same viewpoint, Otara (2011, as cited in Faisal & Carabella, 2023) explains that perception represents the human sensory experience of the world, which includes the awareness of the stimuli and an individual’s decisions on how to respond to

them. From the above, it can be inferred that perception, from the view of psychology, primarily focuses on a particular process that affects how a person perceives and responds to stimuli.

In the field of language teaching and learning, perception indicates personal desire and the process of acquiring knowledge of the surrounding world. Latif and Sahla (2018, as cited in Faisal & Carabella, 2023) state that perception is a sensitive process beginning with a desire to understand the surrounding world. Furthermore, Talis et al. (2018) highlight that perception involves a process in which individuals select, receive, organize, and interpret information from the outside world to make it meaningful to them. It is noticeable that the perception of the same senses may vary from human to human since each human's brain interprets a stimulus differently based on their memory, experience, emotions, or expectations (Lailika, 2019).

Robbins (2018) indicates three indicators of perception named acceptance, understanding, and evaluation. Firstly, acceptance concerns with how a person accepts information from visual, auditory, touch, taste, or sense. Secondly, understanding refers to how a person perceives information based on background knowledge. Finally, evaluation displays how one evaluates and assesses a stimulus associated with his or her existing knowledge and experience. This research utilized the theory proposed by Robbins (2018) to investigate students' perceptions toward the Grammarly intervention.

Previous studies

Numerous studies have been conducted to examine the impacts of Grammarly in enhancing students' writing skills. Maudilia and Wibowo's (2022) action study investigated the effectiveness of using Grammarly learning activities in improving the writing abilities of thirty-three students. The qualitative and quantitative findings confirmed an improvement in the participants' writing skills. Moreover, a case study by Huang et al. (2020) studied the effectiveness of using Grammarly in EFL writing during a 16-week experimental period in China. The participants were forty-three English-majored sophomores. The results of the pre-test, post-test, and questionnaire revealed a significant increase in students' writing performance through the 16-week intervention and their satisfaction with the tool. Furthermore, Sanosi (2022) conducted a between-group experimental study with sixty-four college students to investigate the impact of Grammarly on students' academic writing accuracy. The results indicated that after fourteen weeks of using Grammarly, the experimental group showed a significant improvement in writing accuracy compared to their counterparts. Dewi's (2022) research investigated EFL students' perceptions of the effectiveness of Grammarly. The study utilized a mixed method with qualitative and quantitative data from a questionnaire and interviews with seventy-five students in an EFL writing class. The findings showed that the students had positive perceptions of using Grammarly. The results also suggested that Grammarly had positive impacts on student's writing performance. Quantitative research by Faisal and Carabella (2023) examined the students' attitudes toward using Grammarly in their writing classes. Twenty-three fourth-semester students of the English Language Education Study Program at a private university in Central Java were engaged in the study. The results suggested that 73.3% of the students positively perceived using Grammarly in the academic writing process.

The above-mentioned studies have significantly contributed to identifying the positive effects of using Grammarly in enhancing students' writing performance. Noticeably, most of the studies separately investigated the students' perceptions of the Grammarly tool and the effectiveness of the tool in improving their writing performance. Nevertheless, there may be an interplay between students' attitudes toward Grammarly and the effectiveness of such an

intervention to enhance their writing skills. In addition, as indicated in the literature, Grammarly is regarded as a reliable and potential tool for grammar error reduction. However, not many studies took Grammarly into consideration as a tool to improve students' grammatical accuracy in writing. More importantly, at the researcher's college, most students are low-leveled in English, so enhancing their grammatical accuracy in writing can provide them with a foundation to achieve competence in the English language. Therefore, this research was conducted to study the effectiveness of using Grammarly in enhancing students' grammatical accuracy in writing and their perceptions toward the intervention.

Research Questions

The research aimed to investigate the effectiveness of using Grammarly in fostering students' grammatical accuracy in writing and their attitude toward the intervention in English classes. In other words, the study addressed the two following research questions:

1. How effectively can Grammarly assist students in reducing grammatical errors in writing?
2. What are students' perceptions of using Grammarly?

Methods

Pedagogical Setting & Participants

The study was conducted at a private college where students were required to take four courses in general English as a condition to graduate. The English program that students are enrolling in employs the blended learning method. The coursebook used for the students is American Language Hub, Level 1. Each course lasts six weeks containing seventy-five hours (thirty-four hours for offline lessons and forty-one hours for self-study). There are three two-hour lessons per week. Before class, students have to log in to an online learning system to self-study vocabulary and grammar knowledge and finish practice exercises. In class, the teachers hold activities to review what students learned at home and to help them practice the four skills of English.

Grammarly intervention was implemented with the second-year students in one English class during a six-week period. The students were non-English majors, and they were currently taking the third English course. Upon the course requirement, students were to complete two writing assignments in the second and fifth weeks. The two assignments account for 30% of the total score gained for the course. These assignments were assigned to be finished at home and submitted via the online learning system. In class, teachers gave students detailed instructions on the writing format, content, and how to use Grammarly to proofread their writing before submission. For each writing assignment, students were to write two versions. After finishing the first version, they must have it proofread by the Grammarly free service version to make possible changes and upgrade to version 2, which was marked by the teacher. The first writing assignment was assigned in week 1 and collected in week 2. Following the same process, the second one was assigned and collected in week 5 and week 6, respectively. Noticeably, students had to submit both versions for the teacher to ensure that they had their writing checked and improved with Grammarly. Additionally, students had to highlight the parts that they had made changes after revising the pre-checked version with Grammarly.

The participants were chosen based on a purposive sampling approach. Cohen et al. (2007) explain that purposive sampling is an approach in which the researchers handpick the cases to

be included in the sample based on their judgment of their typicality or possession of specific characteristics being sought. Despite the disadvantage of not representing a significant population, Cohen et al. (2007) emphasize that the purposive sampling technique was advantageous since it is easy and less expensive to set up. This technique was beneficial as the study did not primarily aim at generalizing the findings for a large population. Utilizing the above approach, students who used the Grammarly tool in both writing assignments were selected. Therefore, there were officially thirty-two students participating in the study though the targeted number was thirty-six. In the first place, the students' writing assignments throughout the course were collected for analysis. Afterward, at the end of the course, the students were invited to respond to a survey questionnaire. Then, ten out of thirty-two students were randomly chosen for a focus-group discussion.

Design of the Study

The study employed a case study as the main design. A case study is a study of a 'bounded system' that emphasizes the unity and wholeness of that system but confides the attention to those aspects that are relevant to the research problems at the time (Stake, 1995). It is often used to narrow down a broad field of research into one or a few easily researchable examples. Hassan (2024) highlights that case study research allows a detailed exploration and analysis of a specific phenomenon in its real-life context. Therefore, the research design can provide a comprehensive understanding of the case and its dynamics, which may not be possible through other research methods. The main reason for the author to select this research design was its practical application in the educational field. According to Hassan (2024), case studies can help teachers evaluate students' learning progress, identify areas for improvement, and develop effective teaching strategies. Thanks to this, the researcher can observe the effectiveness of Grammarly intervention and the student's attitude toward the implementation in order to make some modifications in her class if necessary.

With the selected design, the study utilized explanatory sequential mixed-method approach with quantitative and qualitative data to get objective and subjective viewpoints. Firstly, quantitative data was used because it is found to produce objective results that can be interpreted through statistics and numbers (Hoover, 2021). Nevertheless, he also stated that quantitative can be a restrictive form of study because participants cannot tailor their responses or add contexts. In that respect, qualitative data can be a solution to such a limitation. From Ritchie and Lewi's (2003) viewpoint, qualitative data provides an in-depth understanding of the research participants related to their experiences, thoughts, history, social, and material situations. In this research, the quantitative findings gained through students' writing analyses and a questionnaire provided an overview of students' grammatical accuracy after using Grammarly and their perceptions toward the intervention. In addition to this, qualitative findings gained from the group discussion provided an in-depth understanding of the features known based on students' responses to the questionnaire.

Data collection & analysis

The data collection process underwent two phases. In the first phase, quantitative data was collected through two sources. Firstly, students' writing version 2, corrected and revised with Grammarly, of the two writing assignments were gathered and analyzed. The data gained from this source would help identify grammatical accuracy enhancement between the two writing assignments after the intervention. The second source of quantitative data was collected via a questionnaire which was designed based on the theory of the three perception indicators suggested by Robbins (2018) reviewed in the literature. The questionnaire was adapted and

modified from Dewi's (2022) questionnaire. It included eleven Likert-scale items ranging from 1 for strong agreement to 5 for strong disagreement. One rationale for adapting Dewi's (2022) questionnaire was that the research had a comparable goal to one of the two goals of this study, which was to investigate learners' perceptions of integrating Grammarly in English classes. The survey was piloted with ten students who were not taking part in the study, then it was revised before being officially sent to the participants.

In the second phase, a focus-group discussion with ten participants was held. Two open-ended questions were asked to get a deeper understanding of students' opinions toward the intervention regarding possible strengths and limitations of the tool based on their experience. Prior to the interview, the participants were informed about the time, location, and general purpose. The researcher also asked the participants for their permission to audio record the group discussion. The interview protocols of this study followed Creswell's (2009) guidelines, which included a heading, instructions for the interviewees to follow, questions for interviewees, and a thank-you statement. For analytical purposes, the discussion was audio-recorded and transcribed into text with the participants coded as Student A, B, C, and so on.

In terms of data analyses, quantitative data was analyzed using descriptive statistical approaches. Firstly, the grammatical errors in students' two writing assignments were analyzed. During the analysis process, the researcher counted the frequency of errors according to the four types of surface strategy taxonomy and calculated the mean score for each type. Afterward, the questionnaire results were synthesized by calculating the percentage frequency of each item. Furthermore, the qualitative data from the group discussion was analyzed following the sequential stages by Braun and Clarke (2006). Specifically, there are six steps in analyzing qualitative data. The first step, known as familiarizing with the data, involves transcribing the interviews and reading the transcripts repeatedly. In the second step, the initial lists of code are identified as a base for the next stage in which the researcher searches for the themes. In other words, in the third step, the researcher considers how different codes may fit together into a broader theme. The themes can be organized hierarchically, with higher-order themes or sub-themes. Afterward, the fourth step is to review the themes, in which the irrelevant themes are eliminated while other themes may be combined into broader ones. In the fifth step, there is a critical task to identify the central idea in each and provide a name that concisely captures that idea to support the last stage of the process, reporting the data. In the final stage of the analysis process, data from all sources were synthesized and compared to conclude the outcomes of the study.

Findings and discussion

Quantitative findings

Firstly, the results gained from the analyses of the students' writing assignments are presented in Table 2 hereafter.

From Table 2, students' improvement in grammatical accuracy from the first to the second writing assignment could be observable. The mean frequency revealed a moderate decrease in errors between the two assignments in total frequency and all four types of errors. On average, the number of total errors one student made decreased nearly one error from assignment 1 to assignment 2. Additionally, there was a decrease from 1.34 to 0.91 omission mistakes found in one student's assignment 2. Similarly, addition errors and misformation errors fell slightly 0.1 and reached 0.5 and 0.53 errors per student in assignment 2, respectively. Finally, a minor

decrease from 0.25 to 0.16 misordering errors was found between the two writing assignments.

Table 2.

The frequency of students' grammatical errors through the two writing assignments

| Types of errors | Writing Assignment 1 | | Writing Assignment 2 | |
|-----------------|----------------------|------|----------------------|------|
| | Frequency | Mean | Frequency | Mean |
| Total | 93 | 2.91 | 67 | 2.09 |
| Omission | 43 | 1.34 | 29 | 0.91 |
| Addition | 22 | 0.69 | 16 | 0.5 |
| Misformation | 20 | 0.63 | 17 | 0.53 |
| Misordering | 8 | 0.25 | 5 | 0.16 |

The results of the questionnaire regarding students' perceptions toward Grammarly intervention are summarized in Table 3 as follows.

Table 3.

Participants' perceptions of using Grammarly

| | Strongly agree (%) | Agree (%) | Neutral (%) | Disagree (%) | Strongly disagree (%) |
|--|--------------------|-----------|-------------|--------------|-----------------------|
| 1. Students' perceptions of the interface of Grammarly | | | | | |
| 1a. I find Grammarly easy to use. | 78.13 | 15.62 | 3.12 | 0 | 3.12 |
| 1b. I find Grammarly easy to access. | 64.95 | 28.81 | 3.12 | 0 | 3.12 |
| 1c. I find the Grammarly free service version efficient to my needs. | 68.76 | 15.62 | 9.38 | 3.12 | 3.12 |
| 1d. I will continue using Grammarly in the future. | 71.88 | 25.00 | 3.12 | 0 | 0 |
| 2. Students' perceptions of the effectiveness of Grammarly | | | | | |
| 2a. Grammarly helps me identify and correct my grammar mistakes easily. | 71.88 | 25.00 | 3.12 | 0 | 0 |
| 2b. Grammarly helps identify and correct my spelling mistakes easily. | 75.00 | 21.88 | 3.12 | 0 | 0 |
| 2c. Grammarly helps identify and correct other kinds of mistakes like punctuation and word choice. | 75.00 | 15.62 | 9.38 | 0 | 0 |
| 2d. Grammarly helps expand my grammar knowledge. | 71.88 | 18.74 | 9.38 | 0 | 0 |
| 2e. Grammarly helps expand my vocabulary knowledge. | 65.64 | 31.24 | 3.12 | 0 | 0 |
| 2f. Grammarly helps improve my expressions in writing. | 68.76 | 18.74 | 12.50 | 0 | 0 |
| 2g. Grammarly helps me be more confident when I have to write something in English. | 65.64 | 15.62 | 18.74 | 0 | 0 |

As reviewed in the literature, acceptance was one of the perception indicators (Robins, 2018). Generally, the statistics shown in Table 3 indicated that the participants positively accepted the Grammarly intervention. In the first four question items, a large majority of participants confirmed that they were satisfied with the interface of the Grammarly tool. More than 90% of

participants believed that Grammarly was easy to use, and more than 80% thought it was easy to access. Additionally, approximately 85% of the participants indicated their satisfaction with experiencing the free service version of Grammarly, while nearly one-tenth of the students shared a neutral opinion. Remarkably, a total percent of 96.88% of the respondents indicated that they would continue using Grammarly in the future despite a minor percentage being neutral (3.12%).

The other two indicators of perception, understanding and evaluation, were examined in the second section of the survey. The section asked about participants' perceptions of the effectiveness of using Grammarly. Overall, a vast majority of participants shared positive responses about the intervention since no disagreement was recorded in all question items of this section. Firstly, they indicated that Grammarly was beneficial to them in identifying and correcting their grammar and spelling mistakes. The percentage of the agreement and strong agreement was up to 96.88%. Moreover, around 90% of the respondents agreed that Grammarly could help them improve other types of mistakes like punctuation or word choice. Noticeably, that same percentage was observed in the number of participants whose grammar knowledge could improve thanks to Grammarly. Similarly, a majority of participants (96.88%) reported that Grammarly was effective in helping them improve their vocabulary knowledge. In addition, a considerable number of respondents indicated that Grammarly could help improve their writing expressions and foster their confidence in writing, with the percentage of agreement up to 87.5% and 81.62%, respectively. However, a noticeable number of participants shared a neutral opinion that Grammarly could help them express their ideas in writing more easily (18.74%) or be more confident in writing something in English (18.74%).

Qualitative results

Generally, the findings of the group discussion revealed several merits of Grammarly perceived by the interviewees. However, they also indicated the limitations of the tool. The results are explained in detail as follows.

Strengths of Grammarly

Sub-themes: convenience, error reduction, vocabulary and grammar knowledge enhancement

Around three-fourths of the interviewees revealed that the tool was convenient and easy to use.

“I think that it is very convenient to use Grammarly. I just need to log in and copy my writing, then it will immediately help me to check the errors.” (Student E)

More importantly, a majority of the interviewees emphasized that Grammarly effectively assisted them in reducing the mistakes in their writing. Specifically, eight students indicated that Grammarly helped them find and correct grammatical and lexical mistakes, and other kinds of mistakes such as punctuation or word choice in their writing.

“The use of Grammarly can identify errors in terms of grammar, spelling, and punctuation quickly and easily, which can help me improve my vocabulary and grammar knowledge and English expressions. Grammarly also suggests useful ways to correct the mistakes in my writing. I find the suggestions by Grammar understandable and useful to me.” (Student A)

In addition to this, most of the interviewees emphasized that Grammarly was beneficial in enhancing their vocabulary and grammar knowledge.

“Grammarly helps me to find the mistakes I made in grammar or vocabulary. The explanations of these mistakes help me to know why I made them and I think I can learn from them. So, I will try to avoid such mistakes in the future. I think I can improve my grammar and vocabulary knowledge thanks to that.” (Student C).

From the above, it could be drawn out that the results of the group discussion were associated with the quantitative results of the questionnaire. They reflected that students had positive perceptions of the interface of Grammarly and its functions. Besides, the tool could help improve their accuracy and foster their knowledge of grammar and vocabulary.

Limitations of Grammarly

Sub-themes: internet dependence, limited functions, writing contexts

One of the limitations of Grammarly revealed by the interviewees was that the tool depended on the internet connection to be accessed.

“The only thing that I am not happy about Grammarly is that sometimes I cannot access it due to the internet interruption or unstable connection.” (Student H)

Furthermore, another unfavorable feature of Grammarly revealed in the interview results was that the free version of Grammarly offered learners a limited number of functions. In other words, students were charged if they would like to use additional advanced correction functions.

“Grammarly helps me to identify my mistakes. However, for some kinds of mistakes, I need to pay some money to get suggestions on how to improve them.” (Student D)

Noticeably, some interviewees indicated a limitation in favor of the checker functions of Grammarly. Specifically, Grammarly tended to offer the feedback without considering the specific contexts, which could make the suggestions sometimes inappropriate to students' meanings or intentions in writing. This result was in line with Barrot (2022) and Winans (2021) that Grammarly tends to give feedback without considering the specific contexts, which may alter the students' intended meanings or tone in their writing.

“Sometimes I see that the suggestions of Grammarly are inappropriate to the contexts or my writing styles, which makes the correction irrelevant or unnecessary to me.” (Student B)

Discussion

First of all, Grammarly was found to help students reduce the frequency of grammatical mistakes in English writing. This was in line with the results of Sanosi's (2022) study which indicated that Grammarly assisted students in reducing the number of grammatical errors in their writing. Moreover, the findings of the survey and group discussion suggested students' positive perceptions of the Grammarly intervention. This was consistent with the studies by Faisal and Carabella (2023) and Dewi (2022). Noticeably, the study is hoped to contribute to the investigation of Grammarly intervention in enhancing grammatical accuracy in the context of a private college. In other words, it is expected that the study could help to solve a research gap mentioned in the literature regarding a few studies investigating the impact of Grammarly on grammatical accuracy in English writing.

Conclusion

This research aimed to investigate the effectiveness of using Grammarly in improving students' grammatical accuracy in writing and their attitude toward the intervention in English classes. Several conclusions could be drawn out from the quantitative and qualitative findings. Firstly, the analyses of the collected assignments revealed a reduction of grammatical errors between the two writing assignments. Secondly, the findings from the questionnaire indicated students' positive perceptions of Grammarly intervention. Finally, the group discussion highlighted students' attitudes toward the strengths and limitations of the tool. Noticeably, the strengths shared by students were in line with the questionnaire results.

Although the study was believed to be successful in achieving the research aims, there were still limitations to be considered. Firstly, although the quantitative findings indicated a decrease in grammatical errors between the two writing assignments, it was moderate. Hence, it is suggested that future studies should consider integrating other research instruments in addition to students' writing analyses or extending the time for Grammarly implementation so that students' progress in reducing grammatical mistakes could be more clearly observable. Secondly, the scope of the investigation was restricted to a limited number of 32 students. Therefore, the results of this study might be workable with other groups of students with some similar characteristics to the studied group. In other words, it would be hard to generalize the findings of this study to the whole population. Therefore, other researchers can consider expanding the scope of the study with more participants for a better and more reliable generalization of the results.

Based on the findings of this research, there are suggestions for English teachers to improve English teaching. First and foremost, the research findings indicated that the implementation of Grammarly could bolster learners' grammatical accuracy and were well perceived by students. Therefore, English teachers are highly recommended to apply the tool in their classes to help students upgrade their writing performance. Moreover, the findings highlighted several limitations of the Grammarly free version regarding the limited functions and the impractical correction suggestions. Hence, it is advisable for teachers to implement Grammarly in combination with other writing evaluation methods such as peer-checking or teachers' feedback to maximize the effectiveness of the writing evaluation activities.

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