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Exploring the Role of Grammarly as an Artificial Feedback Tool on Students` Writing Performance

Case of Third Year Students of English Language at Yahia Fares University

A Thesis Submitted in Partial Fulfillment of Requirements for the Degree of LMD

Master in Linguistics

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Dedication

I would like to express my deep recognition to Allah for giving me the determination and strength to accomplish this research.

I would like to dedicate this modest piece of work to the closest people to my heart who have really supported me.

First, I dedicate this work to my lovely parents, Djamila and Mohamed, who taught me at a very young age to always believe in my potentials and to settle for nothing less than greatness.

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Ahlam Hadjadj

Dedication

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Abstract

The present study aims at exploring the role of Grammarly as an artificial feedback tool on students' writing performance. It employs an exploratory research design in order to give background information on the topic. Additionally, it uses a quantitative research approach. The target population of the present study is third year students of English language at Yahia Fares University, Department of English language, with 70 participants forming the sample of the study through probability sampling technique. The data collection tool selected for the current study is the questionnaire. The data collected is analyzed through the use of SPSS software. The findings of the study revealed that that students' main difficulties in developing their writing skill involves composition of ideas, poor grammar competence in terms of writing accurate sentences, lack of vocabulary, spelling and punctuation. Moreover, the results also showed that students have positive attitudes towards the role of Grammarly in improving their writing skills. They indicated that it helps them improve their knowledge of language form and structure, discover new sentence structures, and increase their vocabulary through exposure to new words and expressions. Additionally, Grammarly is more time-saving than receiving traditional feedback from their teacher, and it is flexible as it can be used anywhere and anytime to practice writing skills outside the classroom.

Key Terms: Grammarly, feedback, language form, structure.

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List of Abbreviations

AI	Artificial Intelligence
App	Application
EFL	English as a Foreign Language
ESL	English as a Second Language
SLA	Second Language Acquisition

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1. Background of the Study

English serves as the global lingua franca, facilitating international communication and interaction. Additionally, writing is a vital language skill that students utilize to communicate with each other. However, writing is complex and cognitively demanding, posing difficulties for many students. Therefore, in order to advance their writing abilities during this process, teachers are obliged to provide feedback in order to help them overcome their writing difficulties and challenges and improve their productive writing performance that reflects their language proficiency.

Thus, feedback is regarded as essential to the caliber of students' writing in EFL instruction and learning (Tsu & Ng, 2000). The impact of this component on students' writing performance has been the subject of numerous empirical investigations (Damirel & Enginarlar, 2016; Maarof, Yamat & Li, 2011; Paulus, 1999). Most of them came to the conclusion that feedback is essential for raising students' writing proficiency. Ressor (2002) states that students are known to receive guidance on how to improve their writing performance from their teachers. However, it is acknowledged that teachers cannot always provide this feedback to every one of their students in one session, especially in large size classrooms. Thus, automated and customized feedback has shown up in the current era of artificial Intelligence as the most effective solution for this problem.

One of the applications or websites that is designed to provide customized and effective feedback to users on their writing assignments and papers is Grammarly. The latter stands as one of the world's most precise online grammar checkers (Huang, Li & Taylor, 2020). It is used to verify the language structure of the written articles and provide suggestions on how to improve or correct the errors. There has been an extensive research to investigate the effectiveness of this AI feedback tool on students' writing skills (Huang, Li & Taylor, 2020; Dizon, & Gayed, 2021;

Miranty, Widiati, Cahyono & Sharif, 2021). However, it could be also observed through reviewing these articles that the use of this app in the higher education context is scarce and rare. Huang, Li and Taylor (2020) agreed that seldom is the Grammarly app's effectiveness as a feedback tool in academic settings examined. Therefore, the present study aims at highlighting the benefits of this tool for EFL university students and revealing its role in improving their writing performance.

2. Statement of the Problem

Accurate and effective writing is thought to be a key component of students' communication competence and a strong indicator of their linguistic knowledge. Therefore, teachers often rely on written exams in their evaluation process of their learners' linguistic proficiency. This is done because their written exams are the most appropriate assessment tool that saves time and ensures that every student is evaluated equally due to the lack of classroom time and surplus of students in large classrooms. These factors make assessing learners based on their individual performance an impossible task. this also forms a challenge for providing an effective feedback for all learners` in a large-size classroom to assess their writing performance. Thus, despite the great importance of this language skill and its role in determining learners' academic achievements, yet students often this skill to be challenging to develop and improve.

Based on an informal discussion with a group of students from the targeted study population at the English department of Yahia Fares University, it was noted that the EFL students in this department believe that writing is the most difficult skill to master in their university language classes. When given writing assignments, they admitted to having trouble with grammar, spelling, coming up with ideas and thoughts, and selecting the appropriate vocabulary. These issues with students' writing abilities may have an impact not only on their academic progress in

the classroom but also on their professional careers after graduation, since they will need to be proficient language users and writers in order to secure suitable employment opportunities.

Therefore, the present study is conducted to highlight the importance of an innovative teaching and learning tool that is designed to provide automatic feedback to students on their writing performance which is Grammarly app. It also aims at exploring students' perceptions towards the use of this tool in improving their writing skills. Based on research, this app is used to overcome the aforementioned challenge that the majority of EFL teachers encounter which is the inability to provide an effective feedback to all of their students writing performance. Thus, this app offers an automatic immediate feedback that could help teachers overcome this challenge in their EFL classrooms.

3. Research Questions

The current study aims at finding answers to the following research questions:

1. What are the main difficulties that EFL students encounter in their writing process in terms of grammar, coherence, or organization?
2. What are students' perceptions of the use of Grammarly app in improving their writing skills?

4. Purpose of the Study

The present study primarily aims at exploring students' perceptions of the use of Grammaly app as an AI feedback tool in improving their writing skills. This innovative feedback-provider app could have a positive impact on EFL learners' writing since it identifies their writing errors and offers suggestions for correction and improvement. Moreover, the current study also seeks to highlight the main difficulties that EFL students often face during their writing process.

5. Significance of the Study

The study could have a positive contribution in developing the EFL learning and teaching pedagogy in Algeria through the integration of AI in its teaching system. The current era of technological advancement and development emphasizes the reliance on AI in education to improve the learning experiences and increase its outcomes. Thus, highlighting the benefits of using one the AI tools which is Grammarly app, could contribute to the possibility for policymakers and English instructors to consider the fact of integrating this app in the traditional teaching methods and techniques. The benefits that this app offers to up-grade the traditional teaching methods are worth being considered in terms of increasing the efficiency and efficacy of providing corrective feedback to EFL students. This could both facilitate teachers` job and develop learners` writing performance. The results of this study could also benefits higher education students by introducing an efficient feedback tool that could help them improve their writing skills and performance by providing them with immediate and customized feedback.

6. Methodology Overview

The present study employs an exploratory research design in order to give background information on a developing field of study. Additionally, it uses a quantitative research approach that seeks to precisely and accurately gain a thorough understanding of the role of Grammarly app as an AI feedback tool in improving students` writing skills.

The target population of the present study is third year students of English language at Yahia Fares University, Department of English language. They are selected based on their considerable exposure to English language instruction at university, which makes them the most appropriate population for the goals and objectives of the research because they are more likely to disclose any challenges they had with written expression modules. Thus, exploring their writing

challenges and difficulties is emphasized in this study that could provide valuable information in this area. The sample is selected through the non-probability sampling technique which is based on the random selection of research participants to take part in the data collection process.

The data collection tool selected for the current study is the questionnaire. The latter aims at collecting a large base of data in an accurate and systematic manner concerning students' perceptions of the use of Grammarly app in improving writing performance. The design of the questionnaire is based on integrating both close-ended and open-ended questions. The latter helps the researchers obtain elaborated and detailed information from the participants concerning their insights of the research topic. The data collected are to be analyzed through SPSS software.

7. Organization of the Dissertation

There are three main chapters in this dissertation. An introduction is given at the beginning of the research, along with a methodical plan of action for carrying out the current study. It describes the research design and method, the population of the study, sample, methodology, data collection and data analysis tools. The first chapter, which summarizes the literature background on the research issue and comprises the theoretical portion of the study, comes after the general introduction. The research approach used to carry out the study is presented in the second chapter, which is the practical aspect of the dissertation, and also known as the research methodology. The process of data analysis and interpretation, which enables the researchers to find answers to their questions and reach a final conclusion, is highlighted in the third chapter entitled the data analysis and interpretation.

8. Glossary

Grammarly

Grammarly is a grammar checker that detects and corrects grammatical errors using artificial intelligence and natural language processing (Best Writing, 2022).

Writing skills

Writing skills are the aptitudes used to express ideas in writing in a clear and concise manner (Indeed, 2023).

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Introduction

Writing is considered one of the most important language skills that reflect learners' linguistic knowledge and competency in a productive way. It is a means of communication that enables the EFL learner to express his mind and exchange his thoughts with readers through pen and paper. More importantly, it is also a required condition for succeeding in school since most exams and tests are normally conducted in a written form. Thus, mastering writing skills plays a major role in achieving successful EFL learning results.

Moreover, feedback is suggested in literature as one of the most effective strategies that contribute to the development of learners' writing skills and improving them. This strategy works on correcting students' writing errors and enhancing their performance. However, providing feedback in a manual traditional way is challenging for teachers due to classroom size and lack of time. Thus, the reliance on technology is used as a remedy to this problem and provide learners with sufficient automated feedback that covers every learner in the large EFL classroom. One of these online tools that meets learners' needs in terms of receiving feedback to correct their writing errors and improve their writing performance is Grammarly. The present chapter presents a literary background concerning the importance of writing skills, the challenges of learning this skill, and the use of Grammarly as an artificial intelligence tool to provide automated feedback that contributes to the improvement of EFL students' writing performance.

Section One: Writing Skills

1.1. Overview on Language Learning and Skills Development

English has turned nowadays into one of the most popular and used language around the globe. It is a leading force in global communication between nations and countries of the world. Brooker (2018) agrees that English is becoming more and more seen as a way to get a competitive economic advantage as globalization and economic integration constantly increase speed. Consequently, English has emerged as a crucial theme in the discussion of what constitutes high-quality human capital and the competencies required of employees to generate economic value. In other words, English is now seen as a valuable human asset that adds leverage to its users in this globalized technological era.

Hence, acquiring English is considered as a prerequisite requirement for both academic success and professional advancement. Today's learners are expected to be competent English communicators who could participate in global exchange of thoughts and expertise. Moreover, they are expected to demonstrate an effective level of language proficiency in its main four skills, including writing, speaking, reading and listening. The present study is concerned with demonstrating the value of writing skills and the significance of this language competence in both academic and professional atmospheres. According to Motallebzadeh, Ahmadi and Hosseinnia (2018), today's learners are different from traditional students of the other generations, they have different learning styles and academic needs that need to be fulfilled in order to help them succeed in their EFL learning process. Considering the world that they live in, and the manner with which they spend their day reveal that they are more attached to technology and prefer to use in their every task, including education. This notion inspired teachers and scholars to make radical

pedagogical changes that include the integration of technology in the traditional EFL teaching classrooms.

The use of these tools is supported and emphasized for their easy accessibility, effectiveness and feasibility (Hurford, 2021). The use of media tools is often free, thus, teachers could use them easily in their classrooms without fees. They can also ensure their students' access to these tools as well to increase their exposure to language input and practice as well. Moreover, these tools are also known to facilitate the learning and teaching process for both students and teachers and help them achieve more satisfying academic results and outcomes. Consequently, teachers now rely more on the digital assets to help them deliver the lectures more thoroughly and provide students with the opportunity to practice their knowledge and correct their performance in an automated manner.

1.2. Definition of Writing Skills

In fact, writing skills encompass various competencies, as highlighted by different educational scholars. Yi (2009) claims that there is no particular way to define writing abilities, and that the exact concept of this skill differs from one scholar, or teacher, to another according to the approaches he uses to address this skill and teaches it to his students. In his opinion, there are three main approaches of writing, which are product/text-oriented, process/cognitive-oriented and reader/genre-oriented. Therefore, the definition of writing skills differs based on the approach it belongs to.

Based on this approach that attached the definition of writing to these three elements (product/text-oriented, process/cognitive-oriented and reader/genre-oriented), writing is mainly defined as follows. According to Yi (2009), writing is defined based on the product/text-oriented approach as the capacity to obey style guide guidelines for grammar, organization, and punctuation

regardless of the target audience, goal, or context, operating under the premise that a text can only have universal meaning if it is written expressly in accordance with the guidelines. Thus, the focus in this approach is on the form of the text and its ability to transfer ideas in a structured and organized form that adheres to the writing norms and rules.

Secondly, writing is defined based on the second approach which involves process/cognitive-oriented, as the capacity to generate and develop ideas, and then employ specific editing and revision techniques to get them to a complete state within a particular context (Yi, 2009). This approach is more concerned with the process of writing rather than emphasizing the final product or result of the writing procedure. It highlights learners' skills and cognitive abilities that play a major role in determining the quality of their production and the generation and organization of their ideas.

Lastly, the writing ability based on the reader/genre-oriented approach, which places a strong emphasis on reader awareness, views successful writers as individuals who can balance their writing purpose with the reader's expectations, satisfy the reader's rhetorical demands, and make reasonable assumptions about what the reader acknowledges and expects. This approach, according to Yi (2009), defines writing ability as the capacity to carry out writing activities for a specific purpose, meet the needs of a specific discourse community concerning the discourse's structure and substance, and communicate in a functioning manner. Put differently, this definition emphasizes that the writer should consider the reader as the intended audience and strive to create a successful written work that satisfies their requirements and expectations.

In summary, it can be said that identifying one's writing abilities and skills is a difficult process that depends on the approach and setting for this skill. In the case of EFL learning and teaching context, it could be concluded that all three approaches are applicable and only the teacher

could identify which one of the three definitions could be applied in their classroom to accommodate both learners` needs, the learning objectives and the context requirements; if the teachers` goal was to develop their learners' writing style, they could depend on the process-oriented approach, whereas if their focus was on language structure and form, they could opt for the product-text oriented, if their focus however was on the reader and wanted to integrate their preferences in the writing assignment, then they can use the reader-oriented approach.

However, Al-Khasawneh (2014) has presented a much simpler definition and described writing as a mental process that entails generating ideas, putting them in coherent phrases, and then editing them for readability, this process requires a solid understanding of lexical terms, grammatical rules, and logical links to produce adequate writing performances. This is a more generalized description that identified writing as a cognitive process through which learners could express their ideas and thoughts on paper using an outlined set of language rules and norms.

1.3. Importance of Writing Skills

Writing nowadays plays a major role in any learning process since it could be regarded as a measurement of one`s intellectual abilities and academic qualification. According to Urbanova and Oakland (2002), one`s writing capacity has a significant social and academic value and enjoys a high social status (as cited in Klimova, 2012). Society in general view people with good writing skills as intellectual individuals who received a proper education in their life and deserve to be treated with respect and recognition. Thus, this aspect is significantly represented in the EFL learning context by attributing high value to students with good writing skills, considering that their writing reflects their language proficiency and intellectual capacities.

Moreover, Klimova (2012) has also listed some of the major benefits of writing skills in today's world. they include expressing one`s thoughts and ideas, fostering communicative

competence, developing cognitive processing and thinking skills, promoting self-reflection and evaluation techniques, preparing for effective academic competencies and professional skills. These benefits contribute to equipping learners with both cognitive and linguistic set of skills that enable them with the ability to succeed in both their academic careers and professional advancement in the workplace.

Moreover, Richards and Renandya (2002) also agreed that writing skills is a strong indicator of EFL students' language knowledge that reflects their linguistic competence (as cited in Bora, 2023). They argued that when writing, there are a lot of "lower level skills" to be considered, including punctuation, vocabulary selection, and grammatical structures, as well as "upper lever skills" like content, structure, and organization. Therefore, writing represents both learners' higher and lower-order skills which include vocabulary selection, language structure, ideas organization, and other language norms and rules that govern the students` writing form and style.

Furthermore, Bora (2023) openly declared that adequate writing skills plays an equal major role in both academic and professional life. First, it is vital to develop learners' writing performance because it is the most common assessment means that teachers use to evaluate their students` knowledge and academic progress through written exams. Second, graduates are expected to have adequate writing skills which they acquired through their higher education that enable them to effectively function in their workplace (to do desk tasks, including writing professional and formal emails, analysis, editing, writing reports and articles and others).

1.4. Difficulties in Learning Writing Skills

Despite the importance and major significance of writing skills, research shows that teachers often neglect this skill in favor of dedicating classroom time to teach the other skills,

believing that the foundation of writing instruction should primarily be laid in primary schools, leading to less emphasis in higher education (Klimova, 2012). Thus, the lack of teachers` interest of focus on this skill in the other academic level apart from primary school adds to the challenges of developing learners' skills of writing. This shared perspective among teachers and scholars led to the popular misconception which states that writing is a complex and complicated process that requires efforts to teach and more efforts to learn (Heaton, 1975, as cited in Pratiwi, 2012). Thus, writing turned into one of the major language skills in which students face many difficulties and obstacles when learning it. These difficulties are classified according to different scholars in different ways. However, they are similar in content.

Evidently, Bora (2023) presented a detailed list pertaining the major difficulties and errors that EFL students make in their writing performance. These errors include composition, grammar, punctuation, spelling, and diction. According to Al-Khasawneh (2014), grammatical errors are one of the most difficulties that impact learners' writing performance. This type of errors is often committed on the level of gender and number, agreement of nouns, verbs and adjectives, and subject-verb agreement. All these elements are related to language structure and rules through which EFL students are instructed to conjugate verbs and form accurate and correct language structure (noun-verb agreement, singular/plural nouns, adjectives, adverbs.). According to Sheeba (2018), making too many grammar mistakes errors could definitely change the writers` ideas and the meaning desired to be transmitted to the readers. Thus, making grammar errors could alter the meaning of texts and makes it difficult for others to read the written passages.

Moreover, Al-Khasawneh (2014) further elaborated that punctuation errors are those which include capitalization and punctuation marks, whereas spelling errors are those addressing errors that are associated with misspelled words or orthography mistakes that are committed by students

in their writing. However, before elaborating the diction errors and their impact on students ' writing performance, this term should be first explained and identified. According to Richards (2002), the term diction refers to the accurate and appropriate choice of specific words in specific contexts to express a specific meaning (as cited in Nur, 2019). Furthermore, it is known that English vocabulary often has multiple different meanings that are determined by the context they are used in. hence, if a learner failed to use the appropriate vocabulary item in his writing, he would fail in conveying meaning through his text.

Composition errors on the other hand, based on the classification of Bryne (1988), are categorized as a physiology problem involves the content of the writing materials and organization of thoughts and ideas. The author must make an extra effort to ensure a logical and thorough organization of ideas in order to obtain an accurate interpretation of meaning because he is not in direct touch with the reader to know his reaction and interpretation of the written material. In other words, the logical organization of thoughts and ideas plays a significant role in facilitating the meaning transfer from the writer to the reader. If his organization was disrupted, the entire text could lose its meaning and readers would not be able to comprehend it due to the absence of coherency and clarity of thoughts.

Additionally, Sheeba (2018) also discussed some other difficulties that EFL learners often encounter in their writing, one of which is the lack of vocabulary. In fact, it is commonly acknowledged that the more vocabulary students have, the more they are successfully and effectively able to express themselves, either through writing or speaking. Thus, having a limited vocabulary size would inevitably hinder learners from writing adequate essays and paragraphs. As a solution for this issue, Sheeba (2018) suggested in her study the use of mobile or conventional dictionaries during the writing assignments in class so that learners could have access to the

difficult words that they do not know helps to reduce or minimize one of the writing obstacles and to proceed their work.

1.5. Strategies to Improve Students' Writing Skills in English

As it has been shown through this section, writing skill is an important linguistic competency in both the professional workplace and academic environment as well. This skill could determine one' s success or failure in his exams and tests and job requirements in the post graduate career. Despite the importance of this skill, but learners often find it most challenging to learn and develop due to the lack of teachers' interest in this area, especially in higher education where students are expected to have a full mastery of this skill during their earlier language education at school. However, considering the great importance of this skill, both teachers and students should pay more attention and efforts to the effective strategies that could be used to improve their writing and reduce their problems in the EFL classroom.

In fact, the first strategy that is suggested by scholars to improve students' writing performance is practice (Wahdan & Buragohain, 2018). As they say, practice makes perfect; the more students write, the more opportunities they have to produce language and improve their writing proficiency. It works well because it instills in students the habit of practicing their writing, making errors more often, noticing and correcting these errors, and using what they learned about language on paper to enhance their performance. Thus, practice makes an excellent technique for improving EFL learners' writing performance.

In addition, Cole and Feng (2015) proposed a more innovative and digital solution to improve learners' writing performance which includes the use of technology. According to Lee (2012), the primary goal of integrating technology into educational pedagogy is to inspire students to participate in the learning process and work toward improving their academic performance and

language skills (as cited in Cole & Feng, 2015). Therefore, technology tools and means could be used to improve learners' writing skills as well in a way that accommodates their preference and digital orientation. Instructors can also rely on a variety of technologically advanced writing assignments that are designed to boost students' enthusiasm and enhance their writing abilities. These assignments could involve having students use electronic journals and online discussion boards as a way to convey their ideas without having to worry about spelling or handwriting errors. In a study (action research) conducted by Yulia and Amirudin (2021) in Indonesia, the Aegisub program was used as a form of technology-based writing instruction in the EFL classroom, the experimental group was subjected to this software use which offers them videos along with their subtitles in order for students to write their texts. The data was collected before and after the experiment using classroom observations and semi-structured interviews. It was revealed that the automatic grammar correction that the software provides to users significantly contributed to reducing their writing errors and improving their performance. Moreover, it was also found that using technology is effective in enhancing classroom engagement, motivation and creativity in learning English along with developing their writing skills.

In fact, the use of technology-based applications or websites is based on the notion of facilitating learners' writing development and reducing their problems. Boukhechba and Bouhania (2020) exclaimed that the use of technology tools such as autocorrect and spell-checkers contributes to correcting students' grammatical, spelling and even vocabulary errors and improving their writing performance. In other words, these tools play as corrective feedback providers that offer immediate automated feedback regarding students` writing mistakes and the best way to correct them.

This brings into discussion the valuable role of feedback in improving EFL students` writing performance. According to Askew (2004), feedback is a judgment of someone else's work. She proceeds to explain that feedback is offered to a less experienced person by a more experienced individual to improve the quality of his work and enhance his performance. Giving students feedback is claimed to increases their enthusiasm to learn a foreign language by helping them see their strengths and weaknesses and working on their errors to improve their performance (Tunstall & Gipps, 1996).

Thus, feedback plays a vital role in improving one' s writing performance (Ferris, 2003). Instructors can assist their students with their writing by pointing out their errors and pointing them in the direction of proper language usage. It gives students the knowledge about proper language use, which they can retain in their long-term memory to be used later and prevent repeating the same mistakes. However, it is challenging for EFL teachers and instructors to provide effective feedback to all of their students concerning their writing performance, especially in large size classrooms. Hence, the use of technology is a trending technique that is used by both students and teachers to overcome this obstacle and contribute to the development of their writing skills.

Evidently, there are several online tools and websites that target learners' writing skills, such as ChatGPT, which has the ability to provide individualized, formative, diagnostic feedback that assists students in identifying their writing mistakes and effectively guiding their improvement (Rasul, Nair, Kalendra & Robin, 2023). There is also Wikis which in contrast to traditional pen-and-paper writing assignments, enables students to submit their writing assignments online in an engaging manner that encourages users to produce and share material (Vicentini & Oliveira, 2018). In addition, there is also the Grammarly application which forms the topic of the present dissertation. This app, based on literature, is an Automatic Writing Evaluation tool is able to

identify over 300 types of writing errors that could not be even visible o the human eye and knowledge (Bailey & Lee, 2020). This app has gained the attention of scholars, teachers and students alike with its ability to correct written performances, detect the errors in it, and suggest the most accurate and appropriate ways to correct these errors and improve the quality of the written assignment.

Section Two: Grammarly Application

1.1. The Use of Technology in Foreign Language Learning

In today' s globalized world, English is occupying the status of an international means of communication with excellence. It is the classified as one of the most frequently taught and spoken languages on a global scale. According to statistics presented by Broughton, Brumfit, Flavell, Hill and Pincas in (2003), there are 300 million English native speakers across all continents, and there are over 250 million English language learners who utilize the language for daily communication. Moreover, in regions where decisions affecting life and welfare are made, approximately one-sixth of the world's population uses English. These large numbers reflect the wide use of English all over the world by different users in different regions for different purposes.

As a consequence, research has put a great emphasis on English teaching process as an attempt to improve the methods that teachers use around the world and provide effective tools and materials that could help them reach their teaching goals and objectives. Hence, materials play a major role in the EFL or ESL teaching and learning process. According to Kamalvand and Khany (2022), language learning materials are situated at the crossroads of ideological opinions, cultural issues, and second language acquisition (SLA) theories. Thus, they could be also described as the heart or backbone of the EFL or ESL syllabus and curricula.

With recent advances in technology, the reliance on artificial intelligence and media tools has significantly increased. Admittedly, Education has undergone a revolutionary transformation thanks to technology. It is impossible to overstate the value of technology in education, the introduction of computers into the EFL classroom has made it simpler for both professors to convey knowledge and students to learn it (Raja & Nagasubramani, 2018). Numerous studies have shown over the years the positive impact of using technology in the teaching pedagogy (Harris, -

M. Bataineh & A. –Bataineh, 2016; Bhosale, Raverkar, Kadam & Prof, 2002; Carstens, Mallon, & Bataineh, 2021). From this concept of integrating technology in education, teachers developed the concept of using online websites and applications to provide corrective feedback to their students that could help them improve their writing performance. One of these apps that gained a wide range approval from its academic users is Grammarly.

1.2. Overview on Grammarly Application and Its Types

Simply put, Grammarly is defined as a writing tool that helps writers by detecting different kinds of grammatical or linguistic errors in written English (Perdana, Manullang & Masri, 2021). Thus, it is a grammar checking app that detects writers` errors in writing for the purpose of improving their written production. Additionally, Perdana, Manullang, and Masri (2021) also added that this app offers free plagiarism checks which are able to identify mistakes in the academic domain, like plagiarism or data similarity to other web-based data. Thus, in addition to detecting students' writing errors of various types, Grammarly could also notify the writers to information written in their articles that are similar to other data available on the internet to make them avoid the unethical academic act of plagiarism. This definition summarizes briefly the functions and the services that the Grammarly app mainly provides for its users.

Similarly, Vitalis, Antonius, and Arnoldus. (2021) further explained that this app can assist students in identifying grammatical problems in their written texts by automatically identifying the error and offering feedback, it can quickly correct typos in spelling, grammar, and other punctuation elements, such as missing commas and apostrophes (as cited in Amelia, 2022). Hence, this tool is extremely beneficial for language learners who have difficulties in writing. It could identify their spelling, typing and language structure errors and offer them alternatives to correct these errors in order to refine and improve their written essays.

Additionally, Fitriana and Nurazni (2022) demonstrated the different functions of Grammarly in a more accurate and elaborated way. They provided that this app offers numerous services, including writing style, plagiarism detection, spell checking, and grammar and punctuation. In terms of writing style, Grammarly provides its users with suggestions, assistance, and hints that could modify their texts and refine their form to produce more proficient and effective writing performances. In terms of plagiarism, this app shows users the exact passage that indicates the unethical act of taking someone else' s information without citing its name. This way, students could either replace that statement with their own or cite a reference to make their work more academically appropriate. Furthermore, Grammarly, with its spell check feature can examine each word in the written work for misspellings and offer the correct spelling that could replace it. therefore, this app is known for mainly its corrective features that first, detects students` writing errors of various types, and offers accurate modifications or suggestions that could correct these errors and improve the quality of the work presented.

On the other hand, Fitriana and Nurazni (2022) classified this app into two types; a free and a premium version. Admittedly, they explained that the Grammarly Premium is an automatic proofreading AI tool that can spot mistakes according to 250 different grammar rules with a cost of $29.95 as monthly fees. However, compared to premium Grammarly, free Grammarly has fewer features (Fitriana & Nurazni, 2022). Thus, it could be stated that the features offered in the paid version are much more advanced and professional than the standard ones offered on the free version. Nevertheless, free version Grammarly is still seen as an effective language learning tool that could provide an automated feedback for learners to improve their writing performance.

1.3. Benefits of Grammalry Application in Foreign Language Learning

According to Amelia (2022), Grammarlyis a free app that could make a radical shift in EFL learners' writing performance. This tool is claimed to detect learners' writing errors, including spelling, punctuation and grammar mistakes as well. It could also detect plagiarism if found in their texts in order for them to paraphrase these passages and replace them with their own generated information. Moreover, Amelia (2022) also elaborated that this tool is an effective language learning tool that could successfully enhance EFL students' vocabulary learning and development. Thus, one of the major benefits of this app is its feasibility and users` ability to use it without fees which makes it an excellent language learning material for both educators and students alike to take advantage of its services for free. Additionally, this tool is recognized first and foremost for its ability to correct learners` writing production and expanding their knowledge of language form and structure. More importantly, its ability to increase learners` vocabulary is another benefit that this app could offer for its users.

Similarly, Dizon and Gayed (2021) proved the positive effect of using Grammarly as an artificial intelligence writing tool on EFL students' vocabulary expansion. Through their experiment, they were able to reveal that students who use this app in their writing assignment employed a wider range of terms and expressions in the target language than students who performed their writing tasks in the conventional method. Therefore, using Grammarly could result in a significant improvement in lexical richness.

Moreover, Dizon and Gayed (2021) further explained the role of using this AI writing tool in improving EFL learners' writing performance. They demonstrated that when using Grammarly, students made less correctable grammatical errors, such as errors about verb tenses, noun endings, and article usage which shows that the students capacity to write in the L2 with proper grammar

was positively impacted by the intelligent writing tool. In other words, Grammarly is an excellent tool for improving students' writing accuracy through correcting their errors which often include spelling, punctuation, use of tenses errors and other types of writing mistakes that influence their writing performance.

Additionally, Fitriana and Nurazni (2022) revealed through their study, which explores both the benefits and drawbacks of using Grammarly in language learning, that this app helps students promote their autonomous learning through providing them with the opportunity to practice writing outside the classroom and receive an immediate automated feedback that helps them detect their mistakes and improve their writing production. Moreover, it also helps them detect spelling mistakes and their errors in writing or neglecting articles “a” and “an”. Thus, it was revealed that this app is highly beneficial through several levels in promoting EFL students` writing skill and performance inside and outside the classroom.

In another study conducted by Ghufron and Rosyida (2018), a comparative approach was adopted to compare the immediate automated feedback that Grammarly provides with the traditional feedback that the teacher normally provides for his students in his classroom. The main differences between the two are presented in the following table:

Teachers` Feedback	**Grammarly`s Feedback**
- It is conducted manually. - It is delivered using paper. - The errors are highlighted on students` papers.	- It is conducted automatically. - It is using through technology-based devices, such as laptop or mobile. - The errors are highlighted and provided with multiple corrections.

- The teachers provides comments and remarks on paper that guide the learner to correct his writing.	- The app offers modifications that could correct students` writing style and their grammar errors.

Table 1.1. Differences Between Teachers` and Grammarly`s Feedback

In comparing these two types of feedback that aim at correcting and improving the quality of EFL students` writing performance, Ghufron and Rosyida (2018) were able to point to a significant feature or benefit that automated feedback providing softwares could offer, which is a customized feedback to every language learner in the large EFL classroom. It is admitted that teachers often have a problem with providing feedback to every student in their classes concerning their writing performance (Jamshidian, Yamani, Sabri, & Haghani, 2019). Thus, they either focus on some groups of students at a time and leave the rest to other writing tasks, or they just minimize their assessing duration of each students and provide superficial comments and notes to all the students. In both cases, this feedback is still considered deficient and unable to fulfill its function in detecting learners` errors and correcting their performance. However, the use of Grammarly helps teachers overcome this problem through relying on this tool to provide a detailed and customized feedback to every learner so that he could identify his writing mistakes and correct his production.

1.4. Drawbacks of Grammarly Application

As any other language learning tool or material, Grammarly could be described to have some drawbacks which were observed through empirical research. Through their examination of this app, Fitriana and Nurazni (2022) demonstrated that this app' s feedback and correction is not always accurate and correct. The participants who took part in conducting this study as the sample

of research revealed that the corrections provided by Grammarly sometimes alter the meaning of what they wrote when they used it to proofread their work. Furthermore, a few individuals are unsure about Grammarly' s correction which made them obliged to proofread and reread their writing before applying Grammarly's suggestions. Additionally, this experiment also revealed students` desire to use the premium version instead of the free one because it offers much less restricting features and much more effective services.

Another limitation of Grammar checkers, including Grammarly, was presented by Cavaleri and Dianati (2016), they argued that Grammar checkers frequently consider the distinctions between different constructions (such active and passive voice) to be simply syntactic changes, ignoring the role that sentence construction plays in explaining multiple ways to convey the same scenario or situation. However, there are situations where a student may be required or desired to write in passive voice, such as in academic research where objectivity is a requirement. Thus, Grammarly may not be able or effective in providing effective feedback because it would ignore the learner`s academic need for the required writing style with which he needs to conduct his article.

Furthermore, there is another drawback for this app which has been detected through empirical examination that is related to its inability to provide accurate feedback. According to Narita (2012), even with today's latest grammar checking technologies, incorrect sentences made by language learners are difficult to analyze structurally (Cavaleri & Dianati, 2016). As a result, grammar checkers may provide inaccurate feedback and recommendations to students who most need assistance with language and grammar. In other words, students` diverse patterns in making errors in their language written production are not easy to analyze. Thus, this app could fail to identify the type of error that has been committed by the learner and thus, provide an inaccurate

feedback or suggestion that could mislead students and change their written content or the meaning delivered.

1.5. Role of Grammarly Application in Improving Writing Skills (Related Studies)

In fact, Grammarlyhas been extensively examined in research for its role in promoting EFL students` writing skill in different educational contexts. Fahmi and Rachmijati (2021) for instance, attempted to explore the effects of this app on high-school students` writing skill. Their study was based on the problem which indicates that the majority of language learners often make serious errors in spelling, grammar, vocabulary, and punctuation despite the significance of writing and the large amount of time dedicated by the curricula to focus on developing this skill. Therefore, this examination emphasized the role of feedback that could assist and guide them in identifying their mistakes as the only approach to resolve the issue. It adopted a qualitative research design with 32 second year high-school participants through a pre/post-test to measure their progress, or lack of, in writing. The findings revealed that Grammarly had a positive role in identifying learners' writing mistakes and providing suggestions that could improve their performance. It was also recommended that teachers should put more effort in trying to effectively evaluate their students` writing mistakes for the aim of promoting their grammatical accuracy. The study also pointed to the necessity of having self-confidence in writing which could minimize students` errors and make them more assured about their knowledge.

Similarly, Zinkevich and Ledeneva (2021) investigated the same research topic but in a different setting. They examined the use of Grammarly to enhance Mater 1 ESP students' academic writing skill. Their study employed both quantitative and qualitative research methods to investigate this subject. The researchers focused on analyzing the essays produced by the sample of the study based on the following criteria: audience, domain, tone and intent. Through using the

Grammarly app, these essays were examined for their correctness, clarity, delivery, engagement and style issues. The errors detected through this online checking tool were classified as punctuation, long phrases, repetition, and the overuse of first person pronouns in formal writing. Given that it is an academic type of writing, objectivity is emphasized as mentioned earlier. Thus, guiding students through transforming their passages from subjective utterances into objectively academic ones is considered a major benefit for learner`s writing skills development. The findings of this study demonstrated that Grammarly could not benefit learners in terms of generating ideas for them or providing them with ready-made essays and articles. However, it could successfully guide them to their errors and eliminate them for them to improve their writing style and promote its quality. The study also proposed that this app could be better suited for advanced EFL students who only need to refine their language production rather than building their linguistic competence. Furthermore, it also emphasized how important teachers` role is and how Grammarly or other similar grammar checkers cannot replace their job. It is true that these apps provide a customized immediate feedback, but it is not as accurate and direct as the one provided by teachers.

Additionally, Rahmadani (2022) examined the use of Grammarly in improving another type of writing which is related to analytical exposition texts writing. This study employed a descriptive statistical analysis with pre/post-test design to obtain accurate results concerning the research topic. The data revealed that Grammarly has an effective role in improving students` writing quality through correcting their grammar, spelling and punctuation. Moreover, it also demonstrated that teachers could use this online writing facilitator tool as part of their teaching methods to help provide learners with effective feedback that could help enhance their writing skill and performance.

Conclusion

The second section of the chapter revealed the positive role that Grammarly has as an artificial intelligence feedback tool that could guide EFL students to their writing errors and correct their performance. The use of this app has been presented as evidence for the benefits that technology could offer today to traditional language educators and learners alike. Technology is made to facilitate people` life including their learning and teaching process. Thus. This app is designed to resolve teachers` problem in providing effective feedback for all of their students in large-size classrooms on their writing performance. Using this tool enables students to receive customized effective feedback on their performance that details that grammar errors, punctuation mistakes and writing style issues. Through identifying these errors, the app could also suggest appropriate modifications that could correct these errors and improve students` writing quality. It is true that research showed that these suggestions are not always accurate or based on correct errors analysis, however, this does not negate the positive role this tool plays in improving a corrective feedback for learners. The following chapter proceeds to present the practical side of the study which explains the research methodology.

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Introduction

Research methodology serves as a roadmap or guide, outlining the course of the investigation and providing explanations and justifications for each step taken. The present chapter demonstrates the tools, methods and procedures that are followed in conducting the study. It constitutes the research design, method, population and sample, in addition to data collection and data analysis instruments.

2.1. Research Design

Research design could be considered as the most vital aspect of the research methodology. Mishra and Alok (2011) defined research design as the systematic and logical arrangement of all research components and elements that must be included in a study. They further elaborated that it encompasses a comprehensive description of the instruments and protocols used in the process of gathering, measuring, and analyzing data. Thus, it could be stated that research design refers to the overall elements that control the course of the study and dictates the data collection and analysis that are used to approach the research topic.

Similarly, Akhtar (2016) provided that any researcher should create an action plan, which is the framework for data collection, measurement, and analysis. Based on this definition, it could be further confirmed that research design forms the plan of action that determines the course of the study and the tools that are used to collect, interpret and organize the data. It could be also comprehended that there are particular types of research design that researchers could use in order to organize their investigation process and plan for its execution.

Therefore, research identifies several types of research design. Some of these types include descriptive¸ case study, experimental, and exploratory research. Each of these types is used differently based on the aim of each study and the desired outcomes that the researchers seek to

achieve. The most two frequently used designs in research are the experimental and exploratory research design. The first one is one of the most basic research designs in the history of research, it is based on the concept of testing a phenomenon in effect of environmental changes, also called treatments, in order to draw conclusive results that could be generalized as facts (Roos & Morrison, 2003). Since experimental research employs a systematic, scientific methodology to address the study topic, its design is irreversible and straightforward.

Exploratory research on the other hand, is defined as the process of looking into and learning about an unfamiliar area in order to create broad knowledge and provide background information about a specific subject or object (Stebbins, 2001). Therefore, the purpose of exploratory research is to study a research subject that has not been thoroughly studied before and has a limited body of literature to provide foundational knowledge upon which future researchers might base their studies. In order to investigate human phenomena and shed light on the complexity of human mind, perception, and behavior, this type is mostly employed in the human sciences (Stebbins, 2001). consequently, it could be stated that this type of research design is often adopted when the researcher aims to explore human perceptions and insights of a particular topic and provide background information to enrich existing literature.

As a result, the present study employs an exploratory research design that corresponds with the aim it seeks to achieve. The main aim of the study as listed in the section of the general introduction, is to explore students` perceptions towards the use of Grammarly as an Artificial Intelligence Feedback tool to improve their writing performance.

2.2. Research Method

Research method is the second element of methodology that presents the techniques that a researcher or researchers use to address a research question or questions, these tactics may use participant observation, questionnaires, surveys, and historical record analysis, among other things (Pediaa, 2015). In other words, the term research methods refers to the set of tools and strategies that the researchers use to collect, organize, analyze and interpret the data required to answer the research questions that were posed at the beginning of the study. This term could be often confused with the term "methodology". However, it should be kept in mind that methodology includes all the procedures, tools, techniques and approaches used to examine a topic of investigation, including the population, the paradigm, the setting and others, whereas the method is only concerned with the process of data collection and analysis.

In fact, there are three types of research methods that are listed in literature. They determine the strategies that researchers use to approach their data collection and analysis procedures. They include quantitative, qualitative and mixed methods approach (Akhtar, 2016). According to Akhtar (2016), the first type is recognized for being exact and accurate and is supported by statistical data and figures, and it is often used when the study aims at emphasizing quantity rather than quantity. The second type on the other hand, is concerned with the quality of the data collected rather than the quantity, it involves the description of a phenomenon taking into consideration participants' insights and perceptions as the main source of data. Thus, it could be observed that each of these two methods focus on a specific aspect, the first one is used when accuracy is sought, whereas the second one is used when exploring insights and opinions is aimed for promoting comprehension.

Consequently, the third type of research methods is used when a study is targeting both accuracy and comprehension at the same time. This type is called the mixed-methods approach.

Accordingly, the present study uses a quantitative research method for the purpose of accuracy. It seeks to precisely and accurately gain a thorough understanding of the role of Grammarly app as an AI feedback tool in improving students ' writing skills.

2.3. Population of the Study

The population of the study is another integral element of the research methodology. According to Hossan, Mansor and Jaharuddin (2023), this term refers to the set of individuals or things that the study is concentrating on, it could include individuals, couples, groups, organizations, and other like entities that form the focus of the study, and the results can be utilized or applied to them. In other words, the population refers to the group of people from different contexts who attract the attention of the researchers and lead to their inclusion in the research process. Moreover, the final findings of the study are normally generalized on this group after reaching the final research conclusion.

The target population of the present study is third year students of English language at Yahia Fares University, Department of English language. Since this is their first year of university, students are selected based on their initial level of education, which makes them the most appropriate population for the goals and objectives of the research because they are more likely to disclose any challenges they are having with written expression modules. This level also ensures that they are in a transitioning phase from high school to university education. Thus, exploring their writing challenges and difficulties is emphasized in this study that could provide valuable information in this area.

2.4. Sample and Sampling Technique

The term “sample of the study” is closely related to the population of research. Tarsi and Tuff (2012) define the study sample as a subset of the population that shares the same features and

characteristics. Therefore, a population and a sample are essentially two sides of the same coin, or to put it another way, one element is part of the other one, as that sample is part of the population. The population is often too large to include every individual in a research and gather all of their data, so the only thing that separates the two is their respective sizes. As a result, in order to make it possible to include participants in the study and collect data, researchers turn to selecting a smaller group of people to comprise the study's sample. After the study is concluded, the findings are generalized on the entire population as mentioned before, since they share the same characteristics.

In order to determine the precise number of participants that form the study's sample, the researchers could choose one of the sampling techniques that are listed in literature with what suits their aims and objectives. Mainly, there are two types of sampling techniques that are often use, they include the probability and non-probability sampling techniques (Showkat & Parveen, 2017). The first type of sampling technique is based on randomization where each member of the population has an equal chance to be part of the sample selected. The second type on the other hand is based mostly on convenience and the selection of participants based on pre-determined criteria.

In the case of the present study, the sample is selected through the probability sampling technique which is based on the random selection of research participants to take part in the data collection process. Through the use of online questionnaire where every student from the population could be part in the sample, it was estimated that 70 participants formed the final number of the research sample.

2.5. Data Collection

The data collection process is the phase in which the researchers gather information from their sample of the study using different research tools and instruments. According to P. Pandey and M. Pandey (2015), these tools are defined as the instruments that the researchers use to collect, evaluate and interpret the information provided by the participants of the study. In fact, there are different tools that are used in research to fulfill this purpose, each one is used based on the type of data that are to be collected and the aim of each data collection phase. In the case of the present study, a questionnaire is selected to collect the necessary data from the participants concerning their insights of using Grammarly as an AI feedback tool to improve their writing performance.

2.5.1. Students' Questionnaire

A questionnaire is a set of questions given to people in order to gather statistics on a specific topic. According to Roopa and Satya (2012), when properly designed and executed, a questionnaire can be a vital tool for drawing conclusions about specific people, groups, or entire populations. The main purpose of questionnaires is to gather data from participants in a systematic and standardized way. Therefore, the questionnaire is used in this study to collect a large base of data in an accurate and systematic manner concerning students' perceptions of the use of Grammarly app in improving writing performance.

The questionnaire used in the present study is adapted from two different studies that examine the use of Grammarly in improving students' writing. The first one is conducted by Oktaviani, Bahrani and Noor (2022), from which some of the likert scale statements were inspired to build this section. The second study is conducted by Boughaba and Mimoune (2022), from which some questions from the second section were adapted concerning writing skills. The

remaining set of questions is self-developed in order to collect particular data from the participants that serve the research aims and objectives.

2.5.2.1. Description of the Questionnaire: The questionnaire is divided into three main sections, the first one represents participants' background information, the second section explores the insights if the importance of writing skills and its difficulty, and the third section is designed to explore the role of Grammarly and its use in improving writing performance. The questionnaire includes eighteen questions, some of which are close-ended, open-ended and others are likert-scale statements (See Appendix 1).

Section One: Background Information

The first section of the questionnaire aims at exploring participants' personal information, including their level of English proficiency (Q1), their level of writing proficiency (Q2), and their like or dislike of integrating technology-based tools in their language learning process (Q3).

Section Two: Importance of Writing Skills and its Learning Difficulties

The second section of the questionnaire aims at exploring participants` perceptions of the importance of writing skills and its learning difficulties. It includes four questions. The first question is designed to identify how participants perceive the importance of writing skills nowadays (Q4) with justification (Q5). The second question seeks to explore how participants perceive the level of difficulty of writing in English (Q6), and the fourth question aims at exploring the type of difficulties that students encounter in their writing (Q7).

Section Three: Use of Grammarly in Improving Students' Writing Skills

The third section of the questionnaire aims at exploring participants' perceptions of using Grammarly to improve writing skills. It includes eleven questions. The first question aims at identifying whether the participants support the use of technology in language learning process

(Q8). It is followed by the second question that seeks to explore the benefits of integrating technology-based learning tools in the traditional language classroom (Q9). The next question is designed to identify is participants like using online websites and applications to enhance their language learning process (Q10). The fourth question in this section aims at identifying participants' familiarity with Grammarly (Q11), followed by the next question which aims at discovering whether they use the free version or the premium version (Q12). The sixth question is designed to explore participants' opinions about the possibility of avoiding writing mistakes and improving their writing performance through the identification of these mistakes by Grammarly (Q13). Moreover, the seventh question seeks to identify if participants believe that receiving automated feedback from Grammarly is more time-saving than receiving traditional feedback from the teacher (Q14). Furthermore, the eighth question in this section is a likert scale statement that aims to explore participants' agreement or disagreement with some of the benefits and drawbacks of the app (Q15). Following the likert scale statement, the ninth question aims at exploring participants' opinions about the effectiveness of receiving automated feedback from Grammarly compared to receiving traditional feedback from their teacher (Q16), with justification (Q17). At last, the final question in this section aims at exploring participants' attitudes towards using Grammarly to improve their writing skill (Q18).

2.5.2.2. Administration of the Questionnaire: The questionnaire is designed to collect valuable information from the participants concerning their perceptions of the use of Grammarly in improving their writing performance. This tool was administered online using the Google Forms platform on April 28th, 2024. The link was posted on Third year students of English group on Facebook and the data collection process lasted for a week until the number of the sample participation was completed.

2.6. Data Analysis

The final stage of the research procedure encompasses the process of analyzing and interpreting the data collected from the participants to reach the final conclusion. According to Ibrahimi (2015), data analysis is the process of carrying out specific calculations and assessments to draw relevant information from the data gathered. In order to perform this task, different tools and instruments could be used. The present study employed both SPSS and thematic analysis to complete this process. The SPSS is used to analyze the data collected through the questionnaire in a systematic way, whereas the thematic analysis is used to interpret the data collected through the interview in a qualitative way.

Conclusion

The present chapter has presented a detailed description of the research methodology, including the research tools that have been used to collect data from participants in order to reach the final research results and conclusion. The next chapter presents the analysis and interpretation procedure of data collected. The final chapter helps the researchers to conclude the study and obtain the final results that could answer the proposed research questions at the beginning of the study.

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Appendix A: Students' Questionnaire

Résumé

خلاصة

Introduction

Data analysis and interpretation is the final chapter of the dissertation that interprets the information collected from participants through the research tools and analyzed through the data analysis procedures. They are discussed in relation to existing literature and some recommendations and implications are added for further future studies.

I. Data Analysis

3.1. Analysis of Students' Questionnaire

The data collected through the questionnaire are analyzed through IBM SPSS Version 21 software. The results are presented as follows:

3.1.1. Internal validity of the Questionnaire

Table 3.1

Internal Validity of the Tool

Internal Validity of the Tool	Correlation	Significance
	0.877	0.01

****Significant at the *p* =0.01 level**

The table demonstrates that the correlation coefficient of the study tool is statistically significant at the level (0.01). As the value of the validity of the current tool, was proven to reach (0.877). As a result, the coefficient correlation of validity is high and the tool is valid.

3.1.2. Reliability of the Questionnaire

Table 3.2

Reliability of the Tool

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	**N of Items**
0.975	0.981	9

The table represents the stability factor of the present research instrument. The stability of questionnaire reached (0.981), which is high and suitable for study purposes. Hence, the development of the questionnaire is reliable.

Section One: Background Information

1. How would you describe your level of English proficiency?

Table 3.3

Participants' Level of English Proficiency

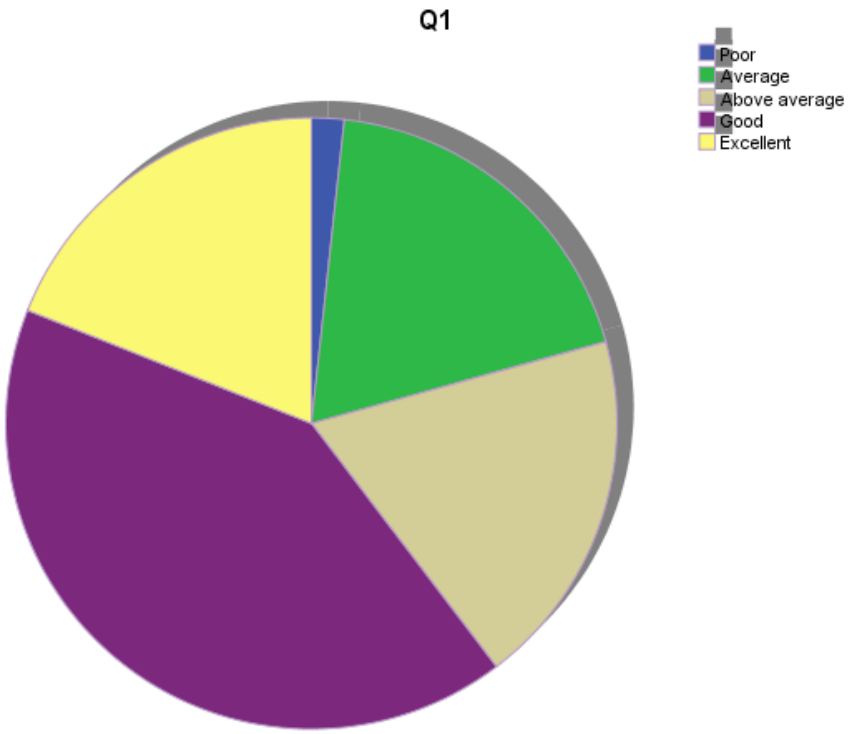
	Frequency	**Percent**
Poor	1	1.7
Average	11	19.0
Above average	11	19.0
Good	24	41.4
Excellent	11	19.0
Total	58	100.0

It appears through table (3.3) which represents participants' level of English proficiency that most of them have a “Good” level in English with a percentage of (41.4%). They are followed by participants who chose “Average”, “Above average” and “Excellent” to represent their level

with an equal percentage of (19%). On the other hand, only one participant indicated that he has a "Poor" level in English with a percentage of (1.7%).

Figure 3.1

Participants' Level of English Proficiency



2. How would you describe your level of writing proficiency?

Table 3.4

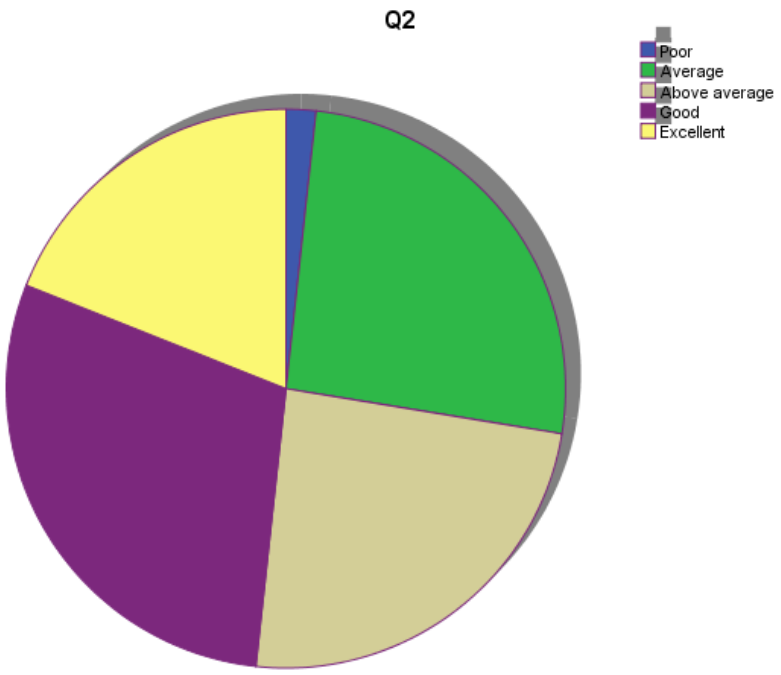
Participants' Level of Writing Proficiency

	Frequency	Percent
Poor	1	1.7
Average	15	25.9
Above average	14	24.1
Good	17	29.3
Excellent	11	19.0
Total	58	100.0

It is clear through the table above which represents participants' level in writing, that the majority of participants have a “Good” level of writing with a percentage of (29.3%). They are followed by other participants who chose “Average” and “Above average” to describe their writing proficiency with successive percentages of (25.9%) and (24.1%). Moreover, other participants selected “Excellent” to indicate their level of writing with a percentage of (19%). However, only one participant expressed to have a “Poor” level in writing with a percentage of (1.7%).

Figure 3.2

Participants' Level of Writing Proficiency



3. Do you like integrating technology-based tools in your language learning process?

Table 3.5

Participants' Attitudes towards Integrating Technology-Based Tools in their Learning

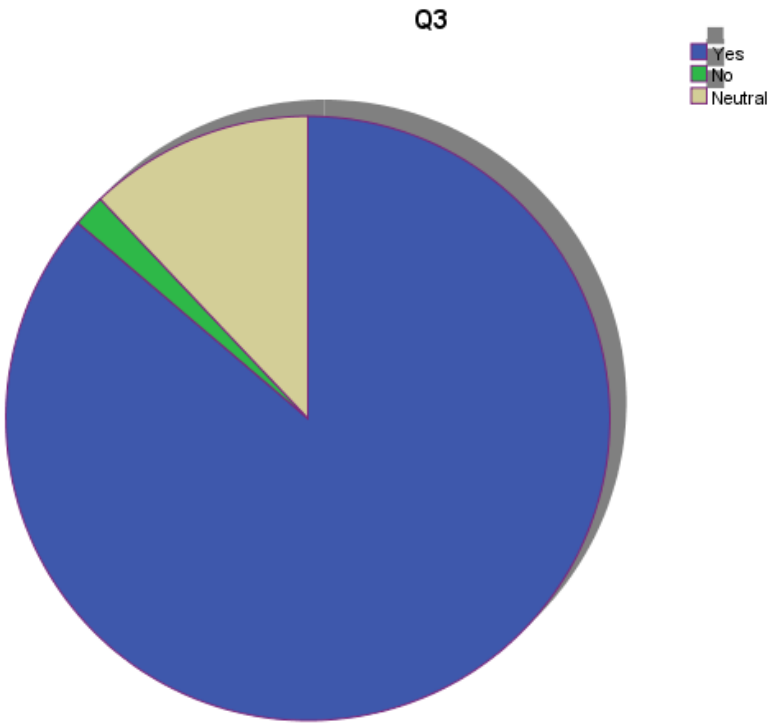
	Frequency	Percent
Yes	50	86.2
No	1	1.7
Neutral	7	12.1
Total	58	100.0

It shows through table (3.5) that a large number of participants like integrating technology-based tools in their language learning process with a percentage of (86.2%). On the other hand, (12.1%) of them chose “Neutral”, indicating their uncertainty about the statement. They are

followed by few participants who showed the opposite, declaring that they do not like this type of tools with a percentage of (12.1%).

Figure 3.3

Participants' Attitudes towards Integrating Technology-Based Tools in their Learning



Section Two: Importance of Writing Skills and its Learning Difficulties

4. How do you perceive the importance of writing skills nowadays?

Table 3.6

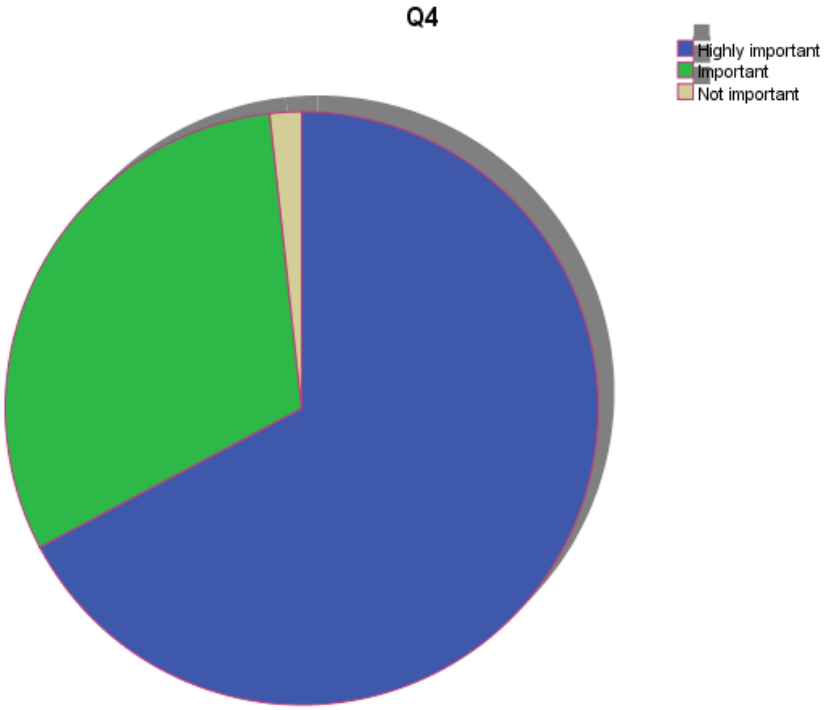
Participants' Perceptions of the Importance of Writing Nowadays

	Frequency	Percent
Highly important	39	67.2
Important	18	31.0
Not important	1	1.7
Total	58	100.0

It is demonstrated through table (3.6) that the majority of participants perceive writing skills nowadays to be “Highly important” with a percentage of (67.2%). They are followed by participants who selected “Important” to express their opinion with a percentage of (31%). However, there is only one participant who indicated that he views it as “Not important” with a percentage of (1.7%).

Figure 3.4

Participants' Perceptions of the Importance of Writing Nowadays



5. Why?

The data collected through this open-ended question revealed that most participants regard writing as a vital language skill in their language learning process. Some participants justified that writing reflects one`s linguistic capacities, critical thinking and how knowledgeable students are in the fields. Thus, writing could be considered as an indicator of one's language proficiency. There are few participants who further added that this skill is vital in academic settings, but less important in daily life context and situations. Others agreed that it is also required in jo applications and perspectives.

6. How do you perceive the level of difficulty of writing in English?

Table 3.7

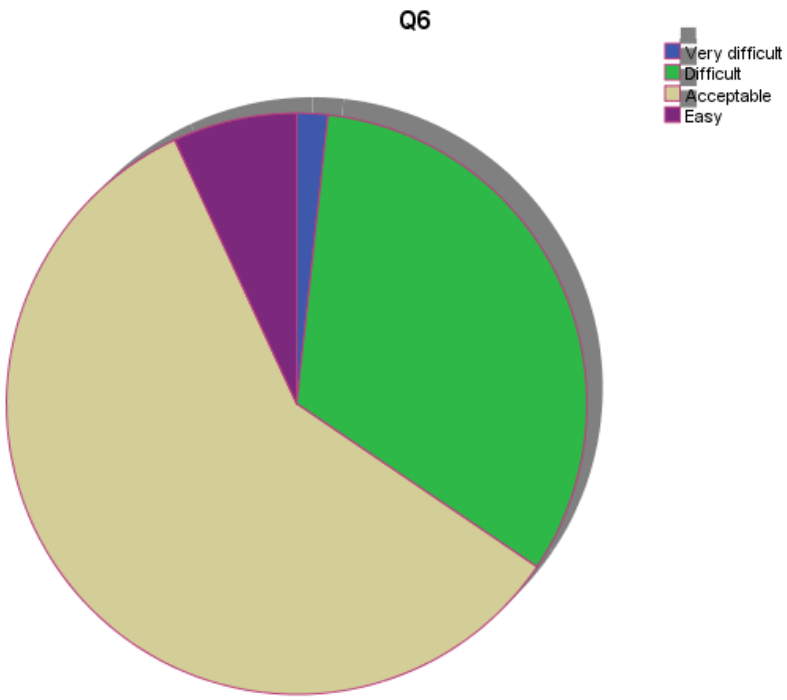
Participants' Perceptions of the Difficulty of Writing

	Frequency	Percent
Very difficult	1	1.7
Difficult	19	32.8
Acceptable	34	58.6
Easy	4	6.9
Total	58	100.0

It is illustrated through table (3.7) that a large number of participants regard writing as Acceptable with a percentage of (58.6%). They are followed by other participants who chose "Difficult" to express their opinion of the difficulty of writing skill with a percentage of (32.8%). There are also few participants who selected "Easy" and "Very difficult" with successive percentages of (6.9%) and (1.7%).

Figure 3.5

Participants' Perceptions of the Difficulty of Writing



Section Three: Use of Grammarly in Improving Students' Writing Skills

7. Tick if you face any of the following difficulties in writing?

Table 3.8

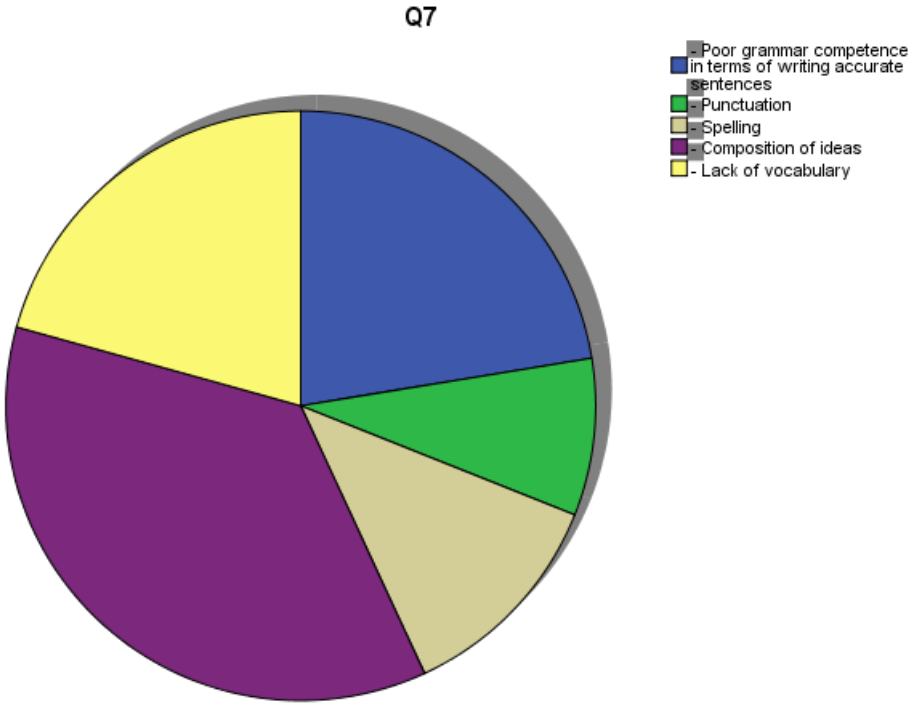
Participants' Difficulties in Writing

	Frequency	Percent
- Poor grammar competence in terms of writing accurate sentences	13	22.4
- Punctuation	5	8.6
- Spelling	7	12.1
- Composition of ideas	21	36.2
- Lack of vocabulary	12	20.7
Total	58	100.0

It is clear through table (3.8) that most participants have difficulties with “Composition of ideas” in writing with a percentage of (36.2%). They are followed by other participants who chose “Poor grammar competence in terms of writing accurate sentences” as their writing problem with a percentage of (22.4%). Moreover, there are some participants who indicated to encounter “Lack of vocabulary” problems with a percentage of (20.7%). There are few participants who chose “Spelling” and “Punctuation’ as their main difficulties in writing with a percentage of (12.1%) and (8.6%) respectively.

Figure 3.6

Participants' Difficulties in Writing



8. Do you support the use of technology in language learning process?

Table 3.9

Participants' Support of Technology Use in Language Learning

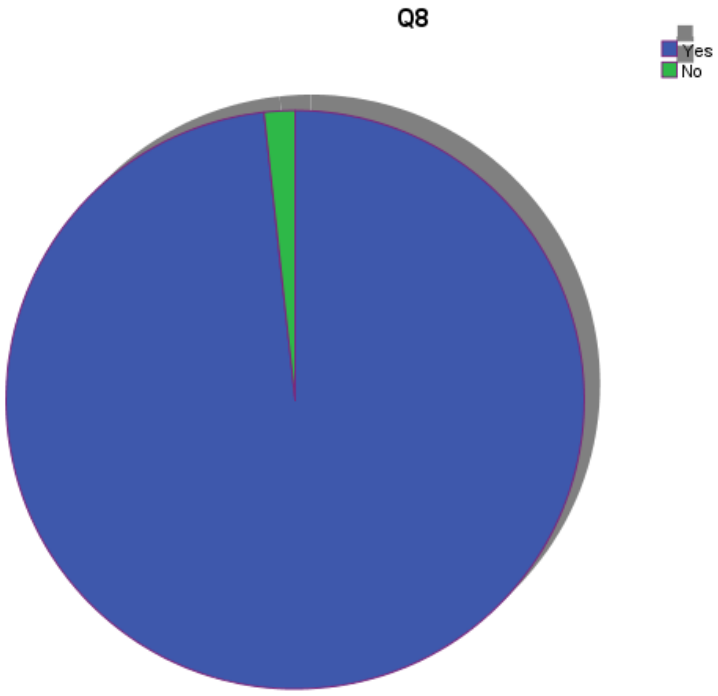
	Frequency	**Percent**
Yes	57	98.3
No	1	1.7
Total	58	100.0

It is clear from table (3.9) that the majority of participants support the use of technology in language learning process with a percentage of (98.3%). They are followed by only one participant

who chose the opposite with a percentage of (1.7%), indicating that he does not support their approach.

Figure 3.7

Participants' Support of Technology Use in Language Learning



9. In your opinion, what are the benefits of integrating technology-based learning tools in the traditional language classroom?

Table 3.10

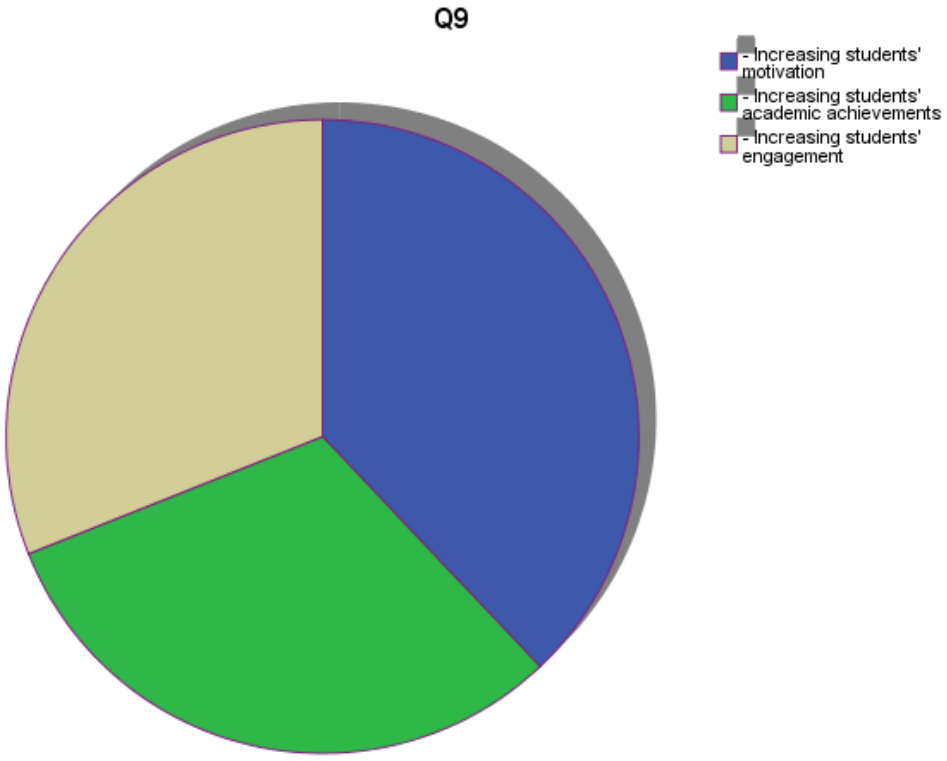
The Benefits of Integrating Technology-based Tools in Traditional Classrooms

	Frequency	Percent
- Increasing students' motivation	22	37.9
- Increasing students' academic achievements	18	31.0
- Increasing students' engagement	18	31.0
Total	58	100.0

It is demonstrated through table (3.10) that most participants believe that integrating technology-based tools in traditional classrooms results in “Increasing students' motivation” with a percentage of (37.9%). They are followed by an equal percentage of participants (31%) who believe that it results in “Increasing students' academic achievements” and “Increasing students' engagement”.

Figure 3.8

The Benefits of Integrating Technology-based Tools in Traditional Classrooms



10. Do you like using online websites and applications to enhance your language learning process?

Table 3.11

Participants' Attitudes towards Online Websites and Applications to Learn

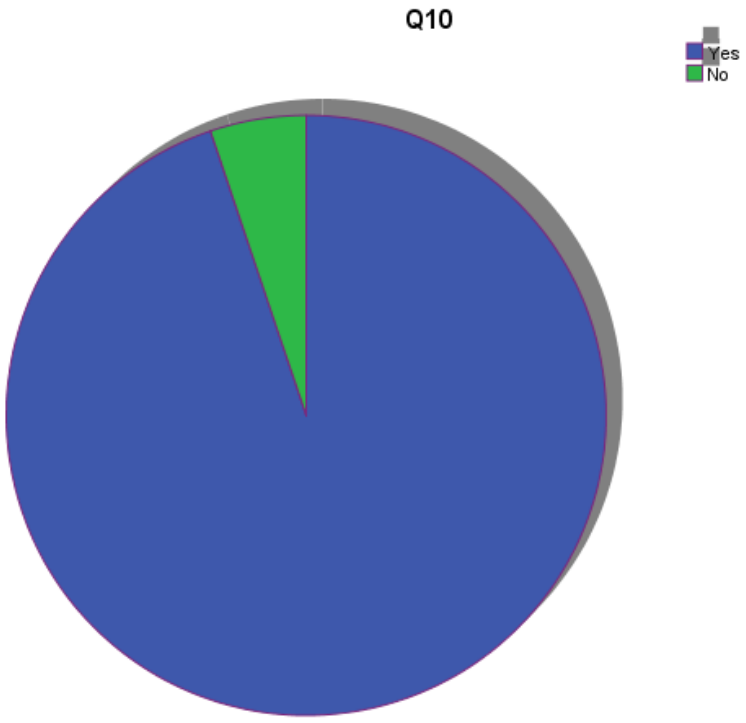
	Frequency	Percent
Yes	55	94.8
No	3	5.2
Total	58	100.0

It shows through table (3.11) that the majority of participants like using online websites and applications to enhance their language learning process with a percentage of (94.8%). They

are followed by (5.2%) of participants who chose the opposite, expressing their dislike of these tools.

Figure 3.9

Participants' Attitudes towards Online Websites and Applications to Learn



11. Have you ever used Grammarly app before?

Table 3.12

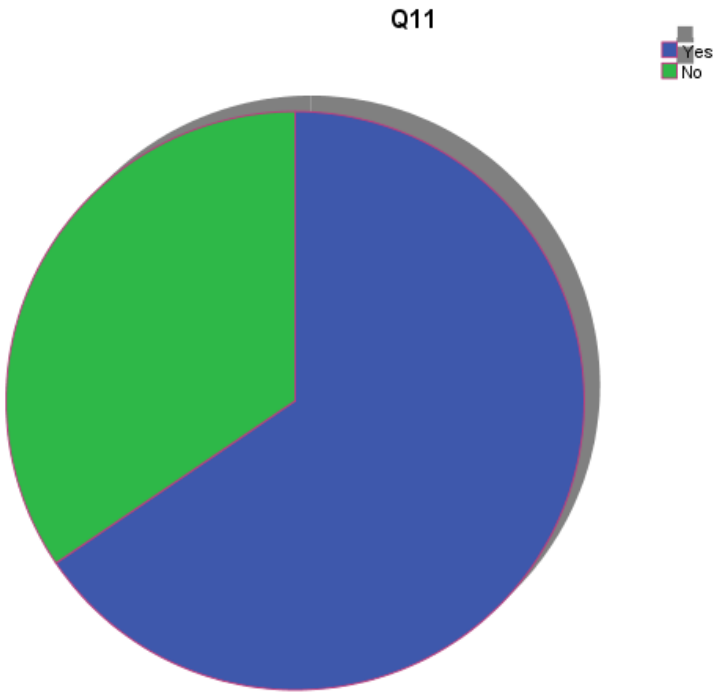
Participants' Experience with Grammarly

		Frequency	Percent
	Yes	38	65.5
	No	20	34.5
	Total	58	100.0

It appears through table (3.12) which represents participants` familiarity with Grammarly app, that the majority of them used this app before with a percentage of (65.5%). They are followed by (34.5%) who declared that they have never used it before. These results indicate the popularity of this app among EFL students.

Figure 3.10

Participants' Experience with Grammarly



12. Which one did you use?

Table 3.13

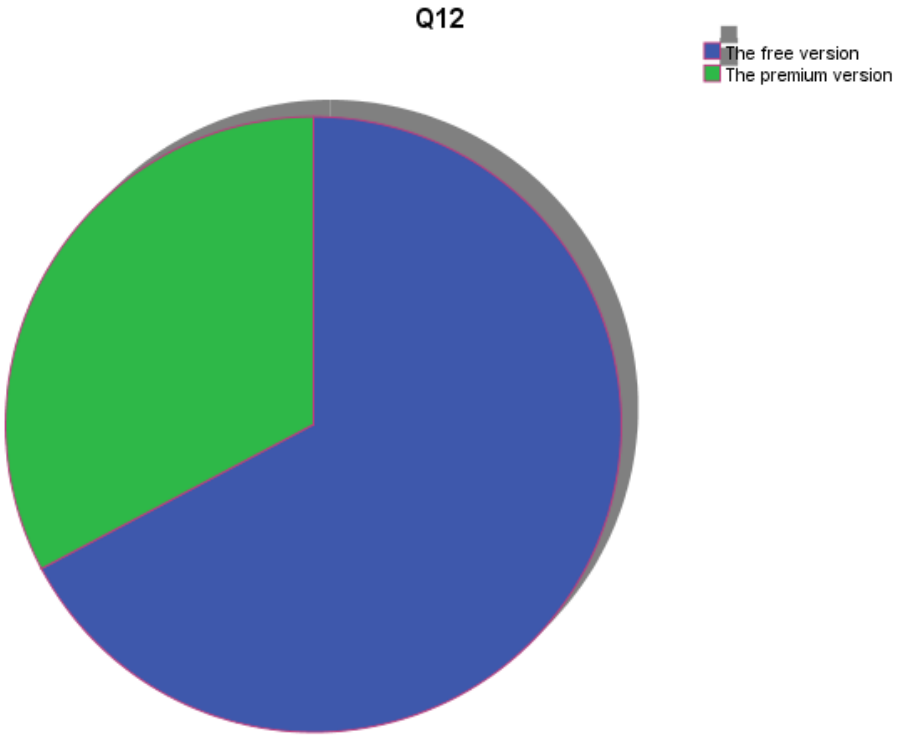
Participants' Use of Grammarly Versions

	Frequency	Percent
The free version	39	67.2
The premium version	19	32.8
Total	58	100.0

It is indicated through table (3.13) which represents participants` use of Grammarly versions, that most participants used the “free version” with a percentage of (67.2%). However, the remaining participants showed that they used the “premium version” with a percentage of (32.8%).

Figure 3.11

Participants' Use of Grammarly Versions



13. Do you believe that identifying your writing mistakes through Grammarly could help you avoid these mistakes in the future and improve your writing performance?

Table 3.14

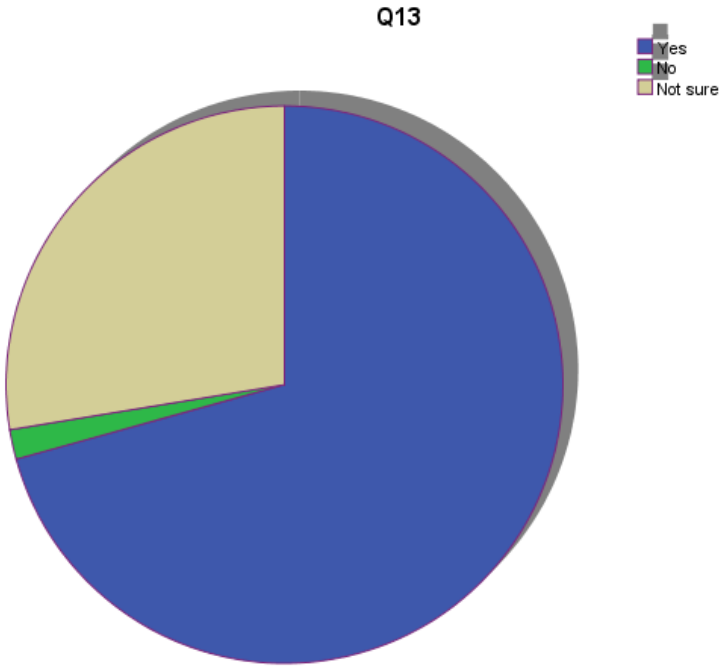
Role of Grammarly in Helping Students Avoid their Writing Mistakes

	Frequency	Percent
Yes	41	70.7
No	1	1.7
Not sure	16	27.6
Total	58	100.0

It is illustrated through table (3.14) which indicates participants` perceptions of the role of Grammarly app in helping students avoid making mistakes, that the majority of them believe that identifying their writing mistakes through Grammarly could help them avoid these mistakes in the future and improve their writing performance with a percentage of (70.7%). They are followed by participants who chose “Not sure” to express their skepticism of this statement with a percentage of (27.6%), while one participants answered “No”, indicating that he does not believe in the role of Grammarly in achieving this writing benefit for students (1.7%).

Figure 3.12

Role of Grammarly in Helping Students Avoid their Writing Mistakes



14. Do you believe that receiving automated feedback from Grammarly is more time-saving than receiving traditional feedback from your teacher?

Table 3.15

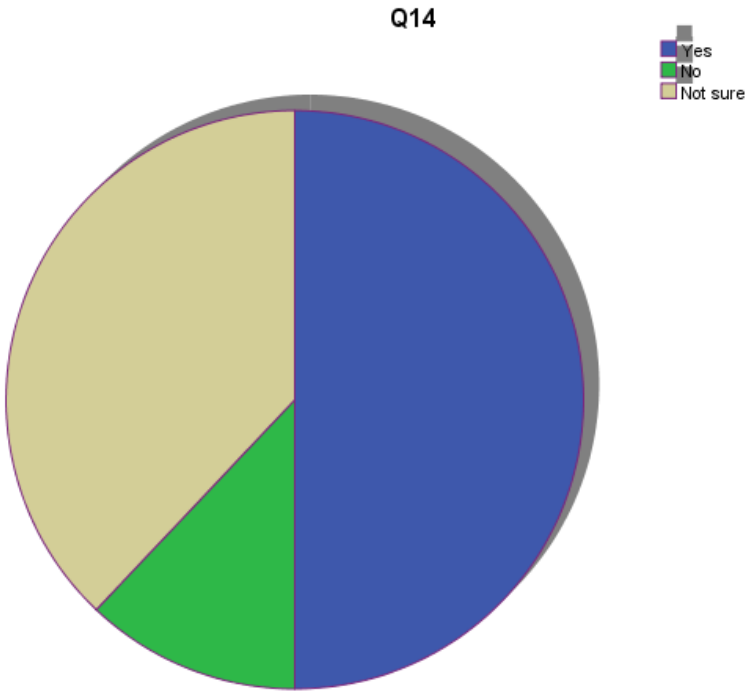
Participants' Perceptions of the Efficiency of Grammarly in Providing Feedback

	Frequency	Percent
Yes	29	50.0
No	7	12.1
Not sure	22	37.9
Total	58	100.0

It appears through table (3.15) that a large number of participants believe that receiving automated feedback from Grammarly is more time-saving than receiving traditional feedback from their teacher with a percentage of (50%). They are followed by some participants who chose “Not sure” to express their uncertainty about the statement with a percentage of (37.9%), while there are few participants who selected “No” with a percentage of (12.1%).

Figure 3.13

Participants' Perceptions of the Efficiency of Grammarly in Providing Feedback



S1. Grammarly is flexible since I can use it anywhere and anytime I practice my writing skills outside the classroom.

Table 3.16

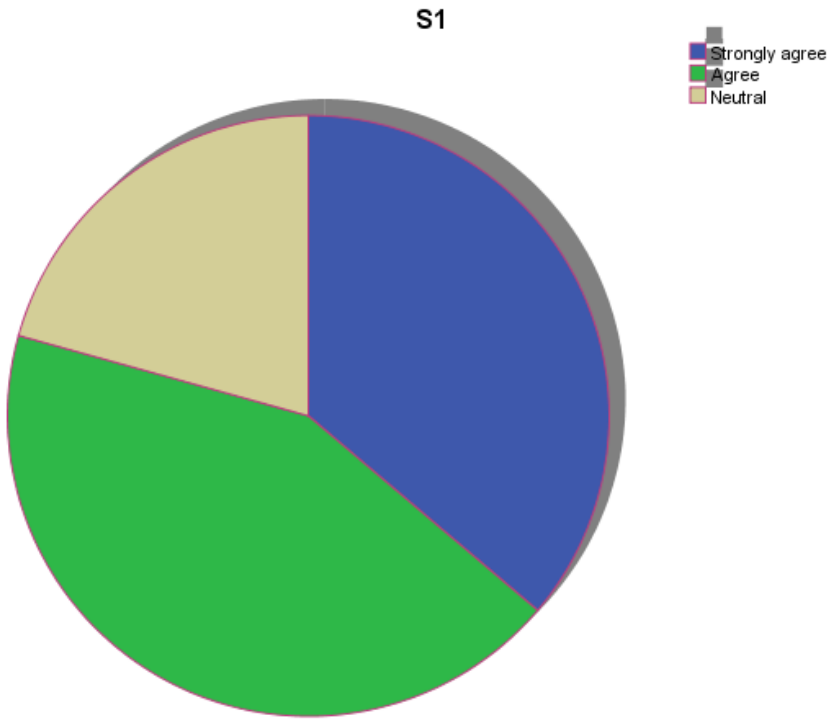
Participants' Perceptions of the Flexibility of Grammarly

	Frequency	Percent
Strongly agree	21	36.2
Agree	25	43.1
Neutral	12	20.7
Total	58	100.0

It shows through table (3.16) that most participants Agree and Strongly agree that Grammarly is flexible since they can use it anywhere and anytime they practice their writing skills outside the classroom with successive percentages of (43.1%) and (36.2%). Moreover, they are followed by other participants who chose “” with a percentage of (20.7%).

Table 3.14

Participants' Perceptions of the Flexibility of Grammarly



S2. Grammarly helps improve a major and challenging language aspect which is grammar. Thus, it helps students improve their knowledge of language form and structure.

Table 3.17

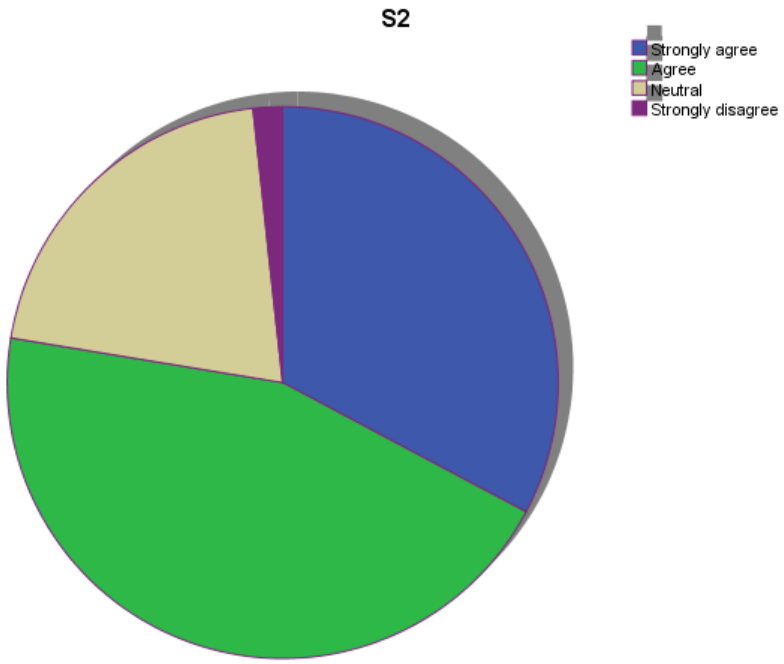
Role of Grammarly in Improving Participants' Grammatical Competence

	Frequency	Percent
Strongly agree	19	32.8
Agree	26	44.8
Neutral	12	20.7
Strongly disagree	1	1.7
Total	58	100.0

It is demonstrated through table (3.17) that the majority of participants Agree and Strongly agree that Grammarly helps improve a major and challenging language aspect which is grammar. Thus, it helps students improve their knowledge of language form and structure with a percentage of (44.8%) and (32.8%) respectively. Moreover, the other participants chose “Neutral” and “Strongly disagree” with successive percentages of (20.7%) and (1.7%).

Figure 3.15

Role of Grammarly in Improving Participants' Grammatical Competence



S3. Grammarly helps students discover new sentence structures to enhance their writing performance

Table 3.18

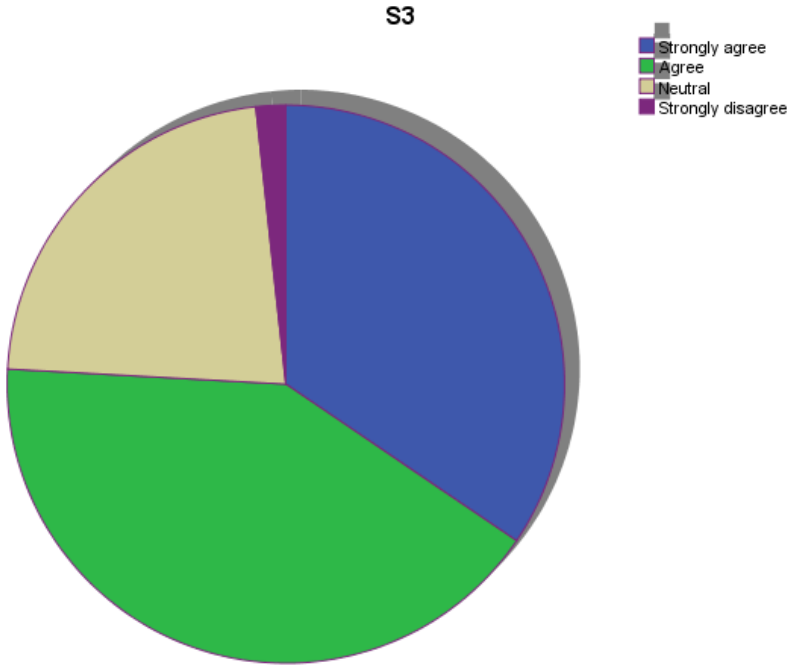
Role of Grammarly in Enhancing Writing Performance

	Frequency	Percent
Strongly agree	20	34.5
Agree	24	41.4
Neutral	13	22.4
Strongly disagree	1	1.7
Total	58	100.0

It is illustrated through table (3.18) that the majority of participants “Strongly agree” and “Agree” that Grammarly helps students discover new sentence structures to enhance their writing performance with a percentage of (41.4%) and (34.5%) respectively. Moreover, there are few participants who chose “Neutral” to express their uncertainty about the statement with a percentage of (22.4%). On the other hand, only one participant selected to “” with a percentage of (1.7%).

Figure 3.16

Role of Grammarly in Enhancing Writing Performance



S4. Grammarly helps increase students' vocabulary through exposure to new words and expressions in English.

Table 3.19

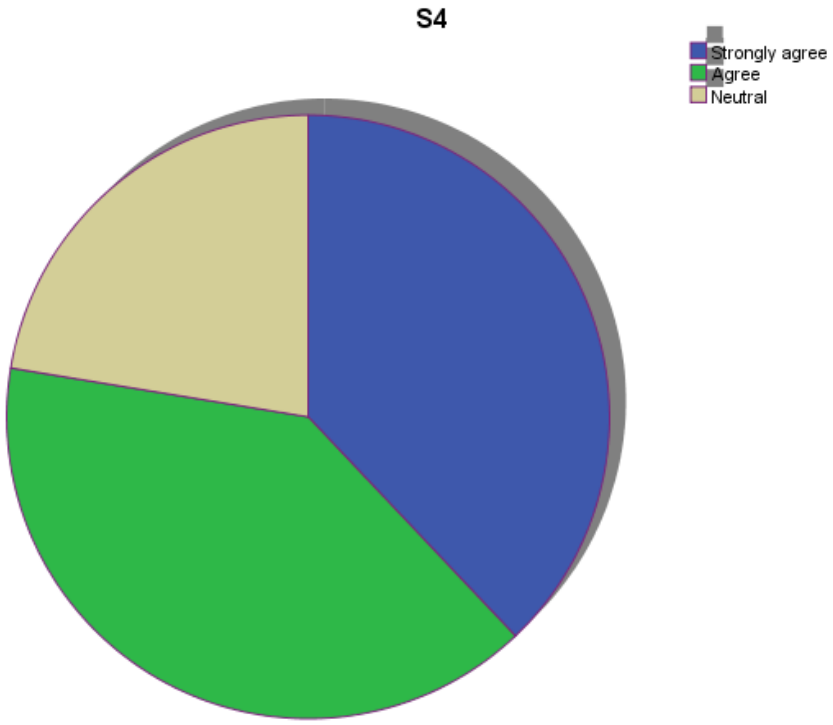
Role of Grammarly in Increasing Students' Vocabulary

	Frequency	Percent
Strongly agree	22	37.9
Agree	23	39.7
Neutral	13	22.4
Total	58	100.0

It appears through table (3.19) that a large number of participants Agree that Grammarly helps increase students' vocabulary through exposure to new words and expressions in English with a percentage of (39.7%). Similarly, other participants chose to “Strongly agree” with the statement with a percentage of (37.9%). However, some participants selected “Neutral” with a percentage of (22.4%) to express their uncertainty of this statement.

Figure 3.17

Role of Grammarly in Increasing Students' Vocabulary



S5. Grammarly does not always provide accurate and correct feedback

Table 3.20

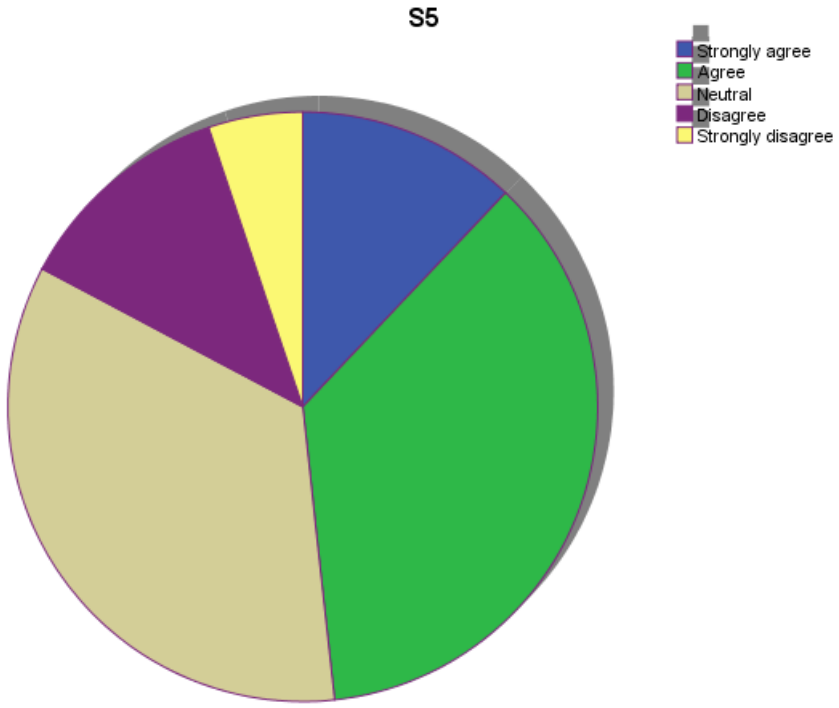
Inaccuracy of Grammarly in Providing Feedback

	Frequency	Percent
Strongly agree	7	12.1
Agree	21	36.2
Neutral	20	34.5
Disagree	7	12.1
Strongly disagree	3	5.2
Total	58	100.0

It is clear from the data in table (3.20) that most participants Agree that Grammarly does not always provide accurate and correct feedback with a percentage of (36.2%). They are followed by participants who chose “Neutral” with a percentage of (34.5%). Moreover, some participants selected to both “Strongly agree” and “Disagree” with the statement with an equal percentage of (12.1%). Furthermore, only one participants indicated to “Strongly disagree” with a percentage of (5.2%).

Figure 3.18

Inaccuracy of Grammarly in Providing Feedback



16. Do you believe that receiving automated feedback from Grammarly is more effective in improving your writing performance than your teacher' s traditional feedback?

Table 3.21

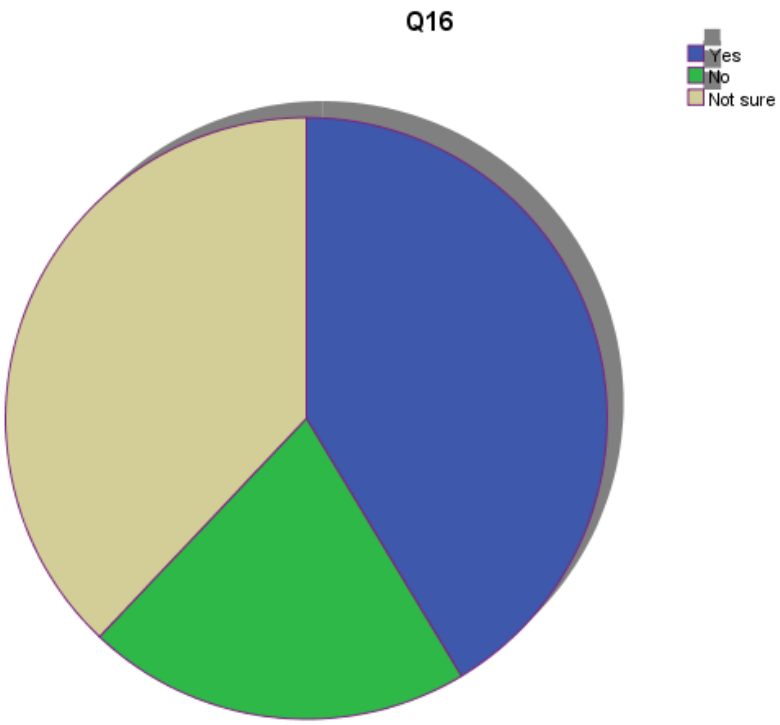
Effectiveness of Grammarly Compared with Traditional Feedback

	Frequency	Percent
Yes	24	41.4
No	12	20.7
Not sure	22	37.9
Total	58	100.0

It is indicated through table (3.21) that the majority of participants believe that receiving automated feedback from Grammarly is more effective in improving their writing performance than their teacher' s traditional feedback with a percentage of (41.4%). They are followed by participants who chose “Not sure” with a percentage of (37.9%) to express their uncertainty, while few participants chose “No” with a percentage of (20.7%).

Figure 3.19

Effectiveness of Grammarly Compared with Traditional Feedback



17. Why?

The data collected through this open-ended questions revealed that students cannot replace their teacher`s feedback and role in the classroom with the use on online app such as Grammarly, they justified that there are types of feedback that could be only provided by the teacher. There is one participant who provided that Grammarly is the most advanced proofreading software on the market but its algorithm doesn't fully understand all the nuances of English. Therefore, it occasionally makes mistakes.

18. What is your attitude towards using Grammarly to improve your writing skill?

Table 3.22

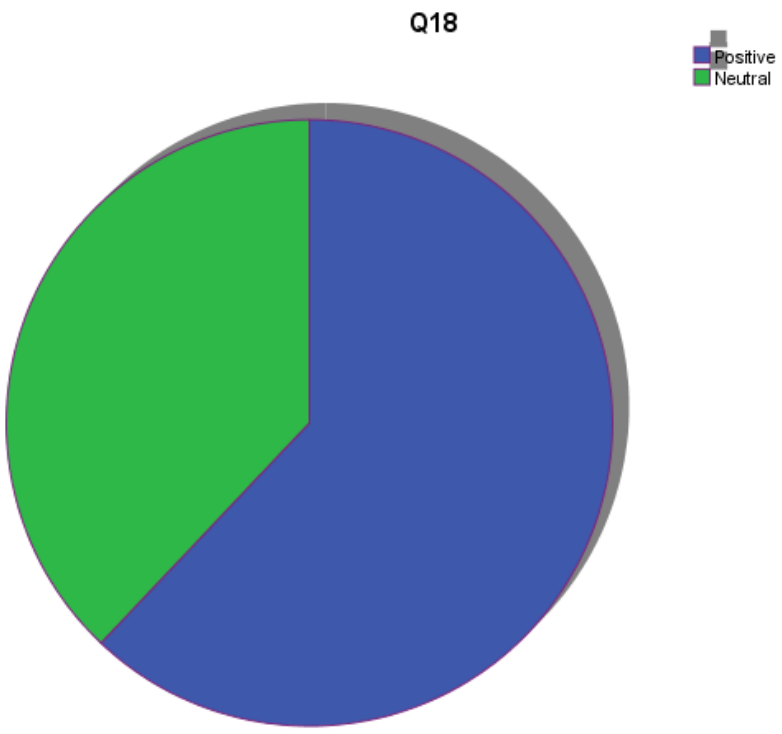
Participants' Attitudes towards Using Grammarly to Improve Writing Skill

	Frequency	Percent
Positive	36	62.1
Neutral	22	37.9
Total	58	100.0

It is demonstrated through table (3.22) that the majority have positive attitudes towards the role of Grammarly in improving their writing skill with a percentage of (62.1%). The remaining participants chose “Neutral” with a percentage of (37.9%).

Figure 3.20

Participants' Attitudes towards Using Grammarly to Improve Writing Skill


Q18
Positive
Neutral

II. Data Interpretation

3.1. Discussion of the Main Findings

The data collected through the questionnaire mainly demonstrated that the majority of participants have a good level in English proficiency. Moreover, they also demonstrated to have a good level in writing in English, and that they like integrating technology-based tools in their language learning process. These results provide positive factors for the present investigation since it highlights the use of a technology-based application that is used to improve writing skills. Moreover, the use of this app requires a good level of English proficiency and writing to be able to perform with it.

In terms of writing skill, the majority of participants showed to regard this language skill as highly important**.** They justified that writing reflects one's linguistic capacities, critical thinking and how knowledgeable students are in their field. Thus, writing could be considered as an indicator of one's language proficiency, this skill is vital in academic settings, but less important in daily life context and situations. Others agreed that it is also required in job applications and professional perspectives. In accord with the same obtained results, Urbanova and Oakland (2002) also asserted that one's writing capacity has a significant social and academic value and enjoys a high social status, Society in general view people with good writing skills as intellectual individuals who received a proper education in their life and deserve to be treated with respect and recognition. Thus, this aspect is significantly represented in the EFL learning context by attributing high value to students with good writing skills, considering that their writing reflects their language proficiency and intellectual capacities. Similarly, Klimova (2012) also acknowledged that writing skill is vital in reflecting one's professional skills that make him illegible for several job opportunities after graduation for the high demand of this skill in workplace environments. Thus,

these findings run in accord with participants' view of the importance of writing and its position in today`s academic and professional life.

However, this language skill has been described by some participants as difficult to learn and to develop. There difficulties include composition of ideas, poor grammar competence in terms of writing accurate sentences, lack of vocabulary, spelling and punctuation. These difficulties have been listed in research by many scholars as common problems that EFL students suffer from in their writing process. Bora (2023) for instance presented the same set of difficulties, including composition, grammar, punctuation, and spelling. Al-Khasawneh (2014) elaborated that grammatical errors are one of the most difficulties that impact learners' writing performance. This type of errors is often committed on the level of gender and number, agreement of nouns, verbs and adjectives, and subject-verb agreement. Moreover, Sheeba (2018), making too many grammar mistakes errors could definitely change the writers' ideas and the meaning desired to be transmitted to the readers. Furthermore, Al-Khasawneh (2014) further added that punctuation errors are those which include capitalization and punctuation marks, whereas spelling errors are those addressing errors that are associated with misspelled words or orthography mistakes that are committed by students in their writing. In terms of composition and vocabulary, Bryne (1988) demonstrated that these errors of composition are categorized as a physiology problem that involves the content of the writing materials and organization of thoughts and ideas. Thus, when writers fail to make a logical connection between the ideas in their writing, their text fail to deliver meaning to the reader. As for vocabulary, Sheeba (2018) summarized the problem of vocabulary, stating that the more vocabulary students have, the more they are successfully and effectively able to express themselves through writing.

Consequently, the majority of participants support the use of technology in language learning process and are in favor of integrating technology-based tools in traditional classrooms. They believe that this approach results in increasing students' motivation, increasing their academic achievements, and increasing their engagement. Therefore, they like using online websites and applications to enhance their language learning. Similarly, several studies proved the results obtained from the participants, such as Bhosale, Raverkar, Kadam and Prof (2002); Carstens, Mallon, and Bataineh (2021) who asserted that technology-based tools help teachers improve the quality of their students' language learning process through increasing their engagement, motivation and academic performance.

One of the apps they use is Grammarly, the majority of them used this app before, and they used the free version more particularly. The majority of them believe that identifying their writing mistakes through Grammarly could help them avoid these mistakes in the future and improve their writing performance. These findings demonstrate the popular and widespread use of this app among EFL students. Moreover, they also show the reliance of students on the free version of this app for its easy accessibility, similar to this result, Fitriana and Nurazni (2022) illustrated that the features offered in the paid version are much more advanced and professional than the standard ones offered on the free version. Nevertheless, free version Grammarly is still seen as an effective language learning tool that could provide an automated feedback for learners to improve their writing performance. In terms of its benefit, Vitalis, Antonius, and Arnoldus. (2021) also agreed that this tool is extremely beneficial for language learners who have difficulties in writing. It could identify their spelling, typing and language structure errors and offer them alternatives to correct these errors in order to refine and improve their written essays. Therefore, it could be stated that

this app can actually help students avoid making writing errors in their future writing assignments since it offers them the correction they need to improve their performance.

They also added that receiving automated feedback from Grammarly is more time-saving than receiving traditional feedback from their teacher, and that Grammarly is flexible since they can use it anywhere and anytime they practice their writing skills outside the classroom, it helps improve a major and challenging language aspect which is grammar. Thus, it helps students improve their knowledge of language form and structure, helps students discover new sentence structures to enhance their writing performance, and helps increase their vocabulary through exposure to new words and expressions. Different researchers showed similar results concerning each of these benefits. Dizon and Gayed (2021) for instance, revealed that students who use this app in their writing assignment employed a wider range of terms and expressions in the target language than students who performed their writing tasks in the conventional method. Therefore, using Grammarly could result in a significant improvement in lexical richness. Amelia (2022) also proved that this tool is recognized first and foremost for its ability to correct learners' writing production and expanding their knowledge of language form and structure. Therefore, improving one`s grammatical competence and expanding their vocabulary are the major benefits of using Grammarly in writing.

However, they also acknowledged that Grammarly does not always provide accurate and correct feedback, it is true that it is the most advanced proofreading software on the market but its algorithm does not fully understand all the nuances of English. Therefore, it occasionally makes mistakes. Similarly, Fitriana and Nurazni (2022) demonstrated that this app' s feedback and correction is not always accurate and correct as that the corrections provided by Grammarly sometimes alter the meaning of what students wrote when they used it to proofread their work.

In terms of comparing traditional feedback with automated one, the majority of participants believe that receiving automated feedback from Grammarly is more effective in improving their writing performance than their teacher' s traditional feedback. Similarly, Ghufron and Rosyida (2018) acknowledged that automated feedback that this app could provide, which is a customized feedback to every language learner in the large EFL classroom is more effective than teacher`s collective feedback that they provide in class. Therefore, the use of Grammarly helps teachers overcome this problem of not finding time to provide each student with customized feedback through relying on this tool to provide a detailed and customized feedback to every learner so that he could identify his writing mistakes and correct his production.

However, participants also added that students cannot replace their teacher's feedback and role in the classroom with the use on online app such as Grammarly, they justified that there are types of feedback that could be only provided by the teacher. In the same vein, Ghufron and Rosyida (2018) also admitted that despite its significant role in detecting errors and providing feedback, Grammarly cannot replace teachers' feedback. They argued that this feedback is still considered deficient and unable to fulfill its function in detecting learners` in depth errors and correcting their performance in traditional-like effectiveness.

At the end, the majority of participants showed to have positive attitudes towards the role of Grammarly in improving their writing skill. There are several studies that have been conducted empirically to prove this effect. Rahmadani (2022) data revealed that Grammarly has an effective role in improving students' writing quality through correcting their grammar, spelling and punctuation. Zinkevich and Ledeneva (2021) also showed that Grammarly could not benefit learners in terms of generating ideas for them or providing them with ready-made essays and

articles. However, it could successfully guide them to their errors and eliminate them for them to improve their writing style and promote its quality.

3.2 Implications of the Study

The present study is conducted to explore the role of Grammarly as an artificial feedback tool on students' writing performance. The findings of this exploratory study revealed that students regard English writing skill as highly important since it reflects one`s linguistic capacities, critical thinking and how knowledgeable students are in their field. Their main difficulties in developing this skill involves composition of ideas, poor grammar competence in terms of writing accurate sentences, lack of vocabulary, spelling and punctuation. Therefore, they like using Grammarly that helps them improve their knowledge of language form and structure and discover new sentence structures to enhance their writing performance, and helps increase their vocabulary through exposure to new words and expressions. Moreover, the findings showed that this app is more time-saving than receiving traditional feedback from their teacher, and that Grammarly is flexible since they can use it anywhere and anytime they practice their writing skills outside the classroom. However, it is also acknowledged that Grammarly does not always provide accurate and correct feedback, it is true that it is the most advanced proofreading software on the market but its algorithm does not fully understand all the nuances of English. Thus, it cannot replace teachers` feedback but it can help them overcome this problem of not finding time to provide each student with customized feedback through relying on this tool to provide a detailed and customized feedback to every learner so that he could identify his writing mistakes and correct his production. in overall, students showed to have positive attitudes towards the role of Grammarly in improving their writing skill.

3.4. Recommendations for Further Studies

- Future studies could adopt a larger and more expanded scope of research to address the role of Grammarly and its impact on EFL students` writing skill. They can use a mixed-methods approach that combines the use of both quantitative and qualitative research methods to gain in-depth comprehension of both students and teachers` insights and offer more information on the topic.

- Researchers could also expand the population of the study and examine the role of Grammarly in improving writing performance through different academic levels in higher education.

- Teachers are also recommended to use this technology-based app as a supplementary teaching method that could help them provide effective feedback for their students concerning their writing performance.

- Students could also rely on the use of this tool in their out of class writing practice. They could improve their writing performance through practicing this skill in their free time and use Grammarly as a replacement for their teacher which could provide them with immediate feedback concerning their performance through detecting their errors and offering them correction replacements.

3.5. Limitations and Delimitations of the Study

One of the limitations that was encountered in this study was the difficulty in the data collection process. In fact, it was challenging to find volunteering participants who were willing to spare some of their time and answer the questions. Therefore, the researchers had to change the method with which they administered the questionnaire and resorted to online data collection. Hence, the use of online questionnaire on Google Forms proved to be a delimitation of the study since it facilitated the data collection process.

3.6. Ethical Considerations

The present study preserved the ethical proportions of its procedures through ensuring complete confidentiality. Participants were reassured that all information they provided would only be used for research sake only. Therefore, their personal data would not be revealed to anyone but the researchers.

Conclusion

This chapter presented all the data collected from the participants, their analysis and their interpretation. The findings showed that students have positive attitudes towards the role of Grammarly in improving their writing skill. They indicated that it helps them improve their knowledge of language form and structure and discover new sentence structures to enhance their writing performance, and helps increase their vocabulary through exposure to new words and expressions. Moreover, this app is more time-saving than receiving traditional feedback from their teacher, and that Grammarly is flexible since they can use it anywhere and anytime they practice their writing skills outside the classroom.

General Conclusion

The present study aims at exploring the role of Grammarly as an artificial feedback tool on students' writing performance. It employs an exploratory research design in order to give background information on the topic. Additionally, it uses a quantitative research approach that seeks to precisely and accurately gain a thorough understanding of the role of Grammarly app as an AI feedback tool in improving students` writing skills. The target population of the present study is third year students of English language at Yahia Fares University, Department of English language, with 70 participants forming the sample of the study through probability sampling technique. The data collection tool selected for the current study is the questionnaire. The latter aims at collecting a large base of data in an accurate and systematic manner concerning students' perceptions of the use of Grammarly app in improving writing performance. The data collected is analyzed through the use of SPSS software, this process aims at answering the following research questions:

3. What are the main difficulties that EFL students encounter in their writing process in terms of grammar, coherence, or organization?
4. What are students' perceptions of the use of Grammarly app in improving their writing skills?

The findings of the study revealed that the collected data was sufficient to answer the research questions that were posed at the beginning of the study. The results showed that students' main difficulties in developing their writing skill involves composition of ideas, poor grammar competence in terms of writing accurate sentences, lack of vocabulary, spelling and punctuation. Moreover, the results also showed that students have positive attitudes towards the role of Grammarly in improving their writing skill. They indicated that it helps them improve their knowledge of language form and structure and discover new sentence structures to enhance their

writing performance, and helps increase their vocabulary through exposure to new words and expressions. Moreover, this app is more time-saving than receiving traditional feedback from their teacher, and that Grammarly is flexible since they can use it anywhere and anytime they practice their writing skills outside the classroom. However, it is also acknowledged that Grammarly does not always provide accurate and correct feedback, it is true that it is the most advanced proofreading software on the market but its algorithm does not fully understand all the nuances of English. Thus, it cannot replace teachers' feedback but it can help them overcome this problem of not finding time to provide each student with customized feedback through relying on this tool to provide a detailed and customized feedback to every learner so that he could identify his writing mistakes and correct his production. in overall, students showed to have positive attitudes towards the role of Grammarly in improving their writing skill.

References

Akhtar, I. (2016). Research Design. Research in Social Science: Interdisciplinary Perspectives. ResearchGate.

Al-Khasawneh, M. F. (2014). Error Analysis of Written English Paragraphs by Jordanian Undergraduate Students: A Case Study. Faculty of Arts and Educational Sciences. Ajloun National University Jordan. International Journal of English Language, Literature and Humanities.

Amelia, P. B. (2022). The Effectiveness of Grammarly Application on Students` Accuracy in Writing. Retrieved from: http://repo.stkippgri-bkl.ac.id/1862/1/MERY_DINA_AMELIA_1835511016.pdf

Askew, S. (2004). Feedback for Learning. Routledge.

Bailey, D & Lee, A. R. (2020). An Exploratory Study of Grammarly in the Language Learning Context: An Analysis of Test-Based, Textbook-Based and Facebook Corpora. TESOL International Journal.

Best Writing. (2022). Grammarly Review (2023): Why It's Worth Every Penny. https://bestwriting.com/blog/grammarly-review. Accessed on Novermber 10, 2023.

Bhosale, V ; Raverkar, P. D ; Kadam, S & Prof, A. (2021). Impact of Modern Technology on Education. Contemporary Research In India (ISSN 2231-2137). ResearchGate.

Boughaba, B & Mimoune, K. (2022). Teachers' and Students' Attitudes Towards Using Grammarly Application in Enhancing EFL Learners' Writing Case of Master Two students of English at the University of Mohammed Seddik Ben Yahia, Jijel.

Boukhechba, H & Bouhania, B. (2020). Using Writing Assistive Technology to Improve EFL University Students Performance. Quarterly of Iranian Distance Education Journal. ResearchGate.

Bora, P. (2023). Importance of Writing Skill to Develop Students' Communication Skill. Research Scholar, Department of English, Tezpur University, Assam, India. Journal for Research Scholars and Professionals of English Language Teachin

Broughton, G; Brumfit, C; Flavell, R; Hill, P & Pincas, A. (2003). Teaching English as a Foreign Language. Second Edition. London and New York.

Brooker, D. (2018). English for Development: a review of research into the role of English as a driver for socio-economic development. Cambridge Assessment English Perspectives.

Bryne, V. (1988). Teaching Writing Skills. Retrieved from : www.academia.edu

Carstens, K. J ; Mallon, J. M & Bataineh, A. (2021). Effects of Technology on Student Learning. TOJET: The Turkish Online Journal of Educational Technology – January 2021, volume 20 Issue 1.

Cavaleri, M & Dianati, S. (2016). You want me to check your grammar again? The usefulness of an online grammar checker as perceived by students. Journal of Academic Language & Learning. ResearchGate.

Cole, J & Feng, J. (2015). Effective Strategies for Improving Writing Skills of Elementary English Language Learners.

Damirel, E & Enginarlar, H. (2016). Effects of Combined Peer-Teacher Feedback on Second Language Writing Development. Semantic Scholar.

Dizon, G & Gayed, J. M. (2021). Examining the impact of Grammarly on the quality of mobile L2 writing. The JALT CALL Journal issn 1832-4215. https://doi.org/10.29140/jaltcall.v17n2.336

El-Hafsa, N. (2019). Mixed Methods Research: An Overview for Beginner Researchers. Journal of Literature, Languages and Linguistics. ResearchGate.

Fahmi, S & Rachmijati, C. (2021). Improving Students` Writing Skill Using Grammarly Application for Second Grade in Senior High School. PROJECT: (Professional Journal of English Education) p–ISSN 2614-6320.

Ferris, D. (2003). Chapter 5 - Does error feedback help student writers? New evidence on the short- and long-term effects of written error correction. Feedback in Second Language Writing.

Fitriana, K & Nurazni, L. (2022). Exploring English Department Students' Perceptions on Using Grammarly to Check the Grammar in their Writing. Journal of English Teaching. http://ejournal.uki.ac.id/index.php/jet

Ghufron, M. A & Rosyida, F. (2018). The Role of Grammarly in Assessing English as foreign Language Writing. Lingua Cultura 12(4):395 DOI:10.21512/lc.v12i4.4582. ResearchGate.

Harris, J ; Bataineh, M & Bataineh, A. (2016). One to One Technology and its Effect on Student Academic Achievement and Motivation. Contemporary Educational Technology. Retreived from : https://files.eric.ed.gov/fulltext/EJ1117604.pdf

Hossan, D; Mansor, D. Z & Jaharuddin, S. N. (2023). Research Population and Sampling in Quantitative Study. DOI:10.58915/ijbt.v13i3.263. ResearchGate.

Huang, H, W; Li, Z & Taylor, L. (2020). The Effectiveness of Using Grammarly to Improve Students' Writing Skills. ICDEL 2020: 2020 the 5th International Conference on Distance Education and Learning. DOI:10.1145/3402569.3402594. ResearchGate.

Hurford, A. (2021). 5 Benefits of Language Learning Technology. The Most Trusted French Language Learning Program Education Disruptor. Retrieved from: https://www.linkedin.com/pulse/5-benefits-language-learning-technology-amelie-hurford

Ibrahimi, M. (2015). The Art of Data Analysis. ResearchGate. Retrieved from :https://www.researchgate.net/publication/283269432_The_art_of_Data_Analysis#:~:text=The%20process%20of%20performing%20certain,analysis.

Indeed. (2023). Definition of Writing Skills. Retrieved from: https://sg.indeed.com/career-advice/career-development/writing-skills. Accessed on Novermber 10, 2023.

Jamshidian, S., Yamani, N., Sabri, M. R., & Haghani, F. (2019). Problems and challenges in providing feedback to clinical teachers on their educational performance: A mixed-methods study. *Journal of education and health promotion*, *8*, 8. https://doi.org/10.4103/jehp.jehp_189_18

Kamalvand, A & Khany, R. (2022). 100 years of research on English language learning/teaching materials: A systematic review. DOI:10.55593/ej.25100a2. ResearchGate.

Klimova, B. (2012). The Importance of Writing. PARIPEX-INDIAN JOURNAL OF RESEARCH 2(1):9-11 DOI:10.15373/22501991/JAN2013/4. ResearchGate.

Maarof, N., Yamat, H., & Li, K. L. (2011). Role of Teacher, Peer and Teacher-Peer Feedback in Enhancing ESL Students' Writing. World Applied Scienced Journal, 15, 29-35.

Miranty, D; Widiati, U; Cahyono, B, Y & Sharif, T, I, S. (2021). The Effectiveness of Using Grammarly in Teaching Writing Among Indonesian Undergraduate EFL Students. Published by Atlantis Press SARL.

Mishra, S. B & Alok, S. (2011). Handbook of Research Methodology. A Compendium for Scholars & Researchers. ResearchGate.

Motallebzadeh, K; Ahmadi, F & Hosseinnia, M. (2018). Relationship between 21st Century Skills, Speaking and Writing Skills: A Structural Equation Modelling Approach. International Journal of Instruction 11(3):265-276 DOI:10.12973/iji.2018.11319a. ResearchGate.

Nur, J. M. A. (2019). Errors in Using Diction and Grammar of Students` Final Course Academic Writing of Department of English Education at Jakarta State University. Universitas Islam Negeri Alauddin Makassar . DOI: https://doi.org/10.24252/elties.v1i1.7248

Paulus, T. (1999). The effect of peer and teacher feedback on student writing. Journal of Second Language Writing Volume 8, Issue 3

Oktaviani, S; Bahrani & Noor, W. N. (2022). Students' perceptions towards the use of Grammarly in English writing skill of Fourth semester English education department at T UINSI SAMARINDA.

Pandey. P & Pandey. M, (2015). Research Methology : Tools and Techniques. Retrieved From : https://www.euacademic.org/BookUpload/9.pdf

Pediaa. (2015). Difference between research methods and research methodology. Retrieved from http://pediaa.com/difference-between-research-methods-and-research-methodology/.

Perdana, I., Manullang, S. O., & Masri, F. A. (2021). Effectiveness of online Grammarly application in improving academicwriting: review of experts` experience. International Journal of Social Sciences, 4(1), 122-130.

Pratiwi, K. D. (2012). Students' Difficulties in writing English (A Study at The Third Semester Students of English Education Program at University of Bengkulu.Quinlan & Titsworth.

Rahmadani, P. (2022). The Effectiveness of Using Grammarly Application on Students` Writing Quality of Analytical Exposition Text at the 11th Grade of Sman 2 Luwu Timur. Retrieved from: http://repository.iainpalopo.ac.id/id/eprint/5668/1/PUTRI%20RAHMADANI.pdf

Raja, R & Nagasubramani, P.C. (2018). Impact of Modern Technology in Education. Journal of Applied and Advanced Research. ResearchGate.

Rasul, T; Nair, R. S; Kalendra, D & Robin, M. (2023). The Role of ChatGPT in Higher Education: Benefits, Challenges, and Future Research Directions. Journal of Applied Learning & Teaching 6(1) DOI:10.37074/jalt.2023.6.1.29. ResearchGate.

Ressor, M. (2002). Issues in Written Teacher Feedback: A Critical Review. ResearchGate.

Roos, S. M & Morrison, G. R. (2003). Experimental Research Methods. ResearchGate.

Sheeba, S. A. (2018). Teaching Writing: Issues and Challenges. International Journal of English Language, Literature and Humanities. ResearchGate.

Showkat, N & Parveen, H. (2017). Non-Probability and Probability Sampling. Chapter: goo.gl/sVnjrLPublisher: e-PG Pathshala. ResearchGate.

Stebbins, R. (2001). Exploratory Research in the Social Sciences: What is Exploration. ResearchGate.

Tarsi, K. & Tuff, T. (2012) Introduction to Population Demographics. Nature Education Knowledge 3(11):3.

Tunstall, P & Gipps, C. (1996). Teacher Feedback to Young Children in Formative Assessment: a typology. https://doi.org/10.1080/0141192960220402

Tsui, A. B. M., & Ng, M. (2000). Do Secondary L2 Writers Benefit from Peer Comments? Journal of Second Language Writing, 9, 147-170.Veliz, 2013

Vicentini, C & Oliveira, D. C. L. (2018). Using Technology Tools in Writing Instruction. University of Miami. ResearchGate.

Wahdan, N & Buragohain, D. (2018). Ivestigating the Effects of Using Writing Process on Students' Writing Performance at Foundation Program- Hai'l University. ResearchGate.

Yi, J. (2009). Defining Writing Ability for Classroom Writing Assessment in High Schools. Pan-Pacific Association of Applied Linguistics 13(1), 53-69

Yulia, Y & Amirudin, S. (2021). Technology to develop student writing skill: a portrait of english language teaching in remote area. DOI: 10.1088/1742-6596/1833/1/012035.

Zinkevich N.A., Ledeneva T.V. (2021). Using Grammarly to En-hance Students' Academic Writing Skills. Professional Discourse & Communication, 3(4), pp. 51–63. https://doi.org/10.24833/2687-0126-2021-3-4-51-63

Appendix A: Students' Questionnaire

Dear students,

This questionnaire is part of ongoing research that examines the role of Grammarly as an artificial feedback tool on EFL students' writing performance. Your contribution is highly essential for the completion of this study. Therefore, you are kindly requested to answer the following questions. Thank you for your time.

Section One: Background Information

7. How would you describe your level of English proficiency?

Poor ☐ Average ☐ Above average ☐ Good ☐ Excellent ☐

8. How would you describe your level of writing proficiency?

Poor ☐ Average ☐ Above average ☐ Good ☐ Excellent ☐

9. Do you like integrating technology-based tools in your language learning process?

Yes ☐ No ☐ Neutral ☐

Section Two: Importance of Writing Skills and its Learning Difficulties

10. How do you perceive the importance of writing skills nowadays?

Highly important ☐ Important ☐ Not important ☐

11. Why? ……

….

12. How do you perceive the level of difficulty of writing in English?

Very difficult ☐ Difficult ☐ Acceptable ☐ Easy ☐

13. Tick if you face any of the following difficulties in writing?

- Poor grammar competence in terms of writing accurate sentences ☐
- Punctuation ☐

- Spelling ☐
- Composition of ideas ☐
- Lack of vocabulary ☐

Section Three: Use of Grammarly in Improving Students' Writing Skills

14. Do you support the use of technology in language learning process?

Yes ☐ No ☐

15. In your opinion, what are the benefits of integrating technology-based learning tools in the traditional language classroom? ☐

- Increasing students' motivation ☐
- Increasing students' academic achievements ☐
- Increasing students' engagement

16. Do you like using online websites and applications to enhance your language learning process?

Yes ☐ No ☐

17. Have you ever used Grammarly app before?

Yes ☐ No ☐

18. Which one did you use?

The free version ☐ The premium version ☐

19. Do you believe that identifying your writing mistakes through Grammarly could help you avoid these mistakes in the future and improve your writing performance?

Yes ☐ No ☐ Not sure ☐

20. Do you believe that receiving automated feedback from Grammarly is more time-saving than receiving traditional feedback from your teacher?

Yes ☐ No ☐ Not sure ☐

21. To what extent do you agree or disagree with the following statements?

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Grammarly is flexible since I can use it anywhere and anytime I practice my writing skills outside the classroom.					
Grammarly helps improve a major and challenging language aspect which is grammar. Thus, it helps students improve their knowledge of language form and structure.					
Grammarly helps students discover new sentence structures to enhance their writing performance.					
Grammarly helps increase students' vocabulary through exposure to new words and expressions in English.					
Grammarly does not always provide accurate and correct feedback.					

22. Do you believe that receiving automated feedback from Grammarly is more effective in improving your writing performance than your teacher' s traditional feedback?

Yes ☐ No ☐ Not sure ☐

23. Why?

……

……

24. What is your attitude towards using Grammarly to improve your writing skill?

Positive ☐ Neutral ☐ Negative ☐

Résumé

La présente étude vise à explorer le rôle de Grammarly en tant qu'outil de rétroaction artificielle sur les performances d'écriture des étudiants. Elle utilise un modèle de recherche exploratoire afin de fournir des informations générales sur le sujet. En outre, elle utilise une approche de recherche quantitative. La population cible de la présente étude est constituée d'étudiants de première année d'anglais à l'université Yahia Fares, département d'anglais, avec 70 participants formant l'échantillon de l'étude par le biais de la technique d'échantillonnage probabiliste. L'outil de collecte de données sélectionné pour l'étude actuelle est le questionnaire. Les données recueillies sont analysées à l'aide du logiciel SPSS. Les résultats de l'étude ont révélé que les principales difficultés rencontrées par les étudiants dans le développement de leurs compétences en matière d'écriture concernent la composition d'idées, des compétences grammaticales médiocres en termes de rédaction de phrases précises, un manque de vocabulaire, d'orthographe et de ponctuation. En outre, les résultats ont également montré que les étudiants ont une attitude positive à l'égard du rôle de Grammarly dans l'amélioration de leurs compétences en matière d'écriture. Ils ont indiqué que l'application les aidait à améliorer leur connaissance de la forme et de la structure de la langue et à découvrir de nouvelles structures de phrases afin d'améliorer leurs performances en matière d'écriture, et qu'elle les aidait à enrichir leur vocabulaire en les exposant à de nouveaux mots et de nouvelles expressions. En outre, cette application leur permet de gagner du temps par rapport aux commentaires traditionnels de leur professeur, et Grammarly est flexible puisqu'ils peuvent l'utiliser n'importe où et n'importe quand pour exercer leurs compétences en matière d'écriture.

Termes clés : Grammarly, feedback, forme de la langue, structure.

خلاصة

كأداة للتراجع الاصطناعي في عروض كتابة الطلاب. إنها تستخدم نموذجًا grammarly تهدف الدراسة الحالية إلى استكشاف دور للبحث الاستكشافي للحصول على معلومات عامة حول الموضوع. علاوة على ذلك، فإنها تستخدم نهجًا للبحث الكمي. يتكون فريق الدراسة الحالية من طلاب الصف الأول في اللغة الإنجليزية في جامعة يحيى فارس، قسم اللغة الإنجليزية، مع 70 مشاركًا في الدراسة على أساس تقنية تقنية التجويد الاحتمالية. أداة جمع البيانات المختارة للدراسة الحالية هي الاستبيان. يتم تحليل البيانات تظهر نتائج الدراسة أن أهم الصعوبات التي يواجهها الطلاب في تطوير كفاءاتهم في مادة .SPSS المسترجعة بمساعدة برنامج الكتابة المتعلقة بتكوين الأفكار، والكفاءات النحوية المتوسطة من خلال تنقيح العبارات الدقيقة، وقليل من المفردات ، التهجئة وعلامات الترقيم. علاوة على ذلك، فإن النتائج تشير أيضًا إلى أن الطلاب يتخذون موقفًا إيجابيًا فيما يتعلق بدور القواعد النحوية في تحسين كفاءاتهم في مادة الكتابة. يشير هذا إلى أن التطبيق يساعد على تحسين معرفة شكل اللغة وبنيتها واكتشاف هياكل جديدة للعبارات لتحسين أدائها في مادة الكتابة، وما الذي يساعدها على ذلك إثراء مفرداتك من خلال عرض الكلمات الجديدة والتعبيرات مرن Grammarly الجديدة. علاوة على ذلك، يسمح هذا التطبيق بجمع الوقت من خلال التعليقات التقليدية للأستاذ، كما أن للغاية ويمكن استخدامه عند عدم الاستيراد أو الاستيراد عند ممارسة كفاءاته في مادة الكتابة.

المصطلحات الرئيسية: النحوي، ردود الفعل، شكل اللغة، البنية.