EVALUATING THE EFFECTIVENESS OF QUILLBOT IN IMPROVING STUDENTS' PARAPHRASING SKILLS: TEACHERS' VOICES

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ABSTRACT

Information technology (IT) has greatly contributed by ushering into a new era in education by facilitating personalized learning, simplifying information access, and empowering teachers to produce multimedia-rich content using AI-mediated digital tools like QuillBot. QuillBot, an AI-mediated cutting-edge educational technology, is employed to facilitate teachers' pedagogical endeavors across academic orientations, including academic writing classes. The most recent literature exemplifies a surge in using AI applications in developing EFL writing skills; however, studies show that teachers' voices are not heard enough. Therefore, the current study aims to evaluate the effectiveness of QuillBot in improving students' paraphrasing skills from their EFL teachers' perspective. To achieve the study's objectives, the descriptive survey method was employed. A randomly stratified sample of (40) teachers teaching in the preparatory year responded to a closed-item questionnaire and a semi-structured interview. The results showed that the study sample highly evaluated QuillBot as a capable tool to improve students' paraphrasing skills. In addition, educational qualifications and experiences did not contribute to varying their responses. Finally, the interview revealed some advantages and disadvantages of using QuillBot. In light of the findings, the study recommends that QuillBot should be integrated as an educational resource within the writing curriculum.

Keywords: *Effectiveness, EFL Teachers, QuillBot, Paraphrasing Skills, Preparatory Year Students*

1. INTRODUCTION

Effective writing is a critical skill for academics and teaching and learning writing have always been considered a challenge in the EFL context. Acquiring writing in a foreign language-teaching context has been challenging for teaching and learning contexts; it is considered a core skill in language teaching and curriculum design, including learning to write proficiently that lays the foundations of academic achievement [1] [2]. Information technology has completely transformed the educational landscape enabling teachers to provide multimedia-rich curricula, streamlining information access, and enabling personalized learning. IT and AI-mediated tools are used by personalized learning platforms to evaluate student performance and deliver customized learning experiences. Due to the availability of the internet and digital media platforms, the learners' experiences have been dramatically transformed. With the use of AI-mediated resources like QuillBot, teachers can provide interesting content. Paraphrasing, summarizing, and grammar checks are some of the examples of multimedia-rich information that can improve students' writing skills in general and paraphrasing in particular, and make their learning more interesting. According to Cahyono and Rahayu [3], students tend to be driven to perform writing activities to finish classroom-based assignments in a more effective manner. Hyland [4] asserts that the complex character of writing and its status as a productive

skill result in a combination of syntax, vocabulary, grammar, and subskills, such as awareness of connected speech, fluency, unity, and coherence. Paraphrasing, as a sub-skill, as well is also a critical component of writing abilities. It is regarded as one of the most challenging tasks in academic writing; it requires many ideas to be implemented in writing classes, such as syntax, vocabulary, grammar, fluency, unity, coherence, and so on [5]. Fitria [6] defined paraphrasing as a method of presenting an idea in another language without diluting or embellishing the original content. Paraphrasing is used to reduce plagiarism, especially in compositions with numerous reference sources [6]. Teachers have used a variety of strategies and tactics to teach EFL students writing skills, including paraphrasing. Their perceptions significantly affect these strategies. Teachers' actions, according to Nation and Macalister [7], are influenced by their thoughts and views. Similarly, Williams and Burden [8] assert that "teachers' deep-rooted beliefs about how languages are learned will pervade their classroom actions more than any particular methodology they are told to adopt or course book they follow" (p. 57). Similarly, Kagan [9] claims that teachers' actions and policies reflect their beliefs and conceptions about language acquisition and instruction. AI invention has transformed pedagogy and learning environments further. AI-mediated tool incorporation has made it easier for EFL students to develop their writing abilities, including paraphrasing skills. Many AI-mediated resources are available to improve students' educational experiences, such as QuillBot, which assists in improving writing and paraphrasing skills. QuillBot is one of the technologies that help with the difficulties of writing skills, particularly paraphrasing [10]. Many researchers, such as Fitria [11], agree that QuillBot can assist students by reducing plagiarism, paraphrasing, and auto-correcting writing. One of the most popular free paraphrasing tools is QuillBot, a system that uses artificial intelligence (AI) to generate phrasing options. An AI program not only assists students in paraphrasing but also in overcoming the challenges that paraphrasing provides. QuillBot provides a system that employs artificial intelligence to paraphrase concepts [12]. QuillBot provides an alternative when professors and students lack the time and motivation to paraphrase manually [13]. This program is easy to use; we simply write or paste the information and then press the rewrite button [14]. QuillBot also has automatic writing evaluation (AWE) features for grammar checkers. Teachers, authors, bloggers, students, and others have benefited from this curriculum [15]. Moreover, teachers must familiarize themselves with how the assignments created by AI technologies could interest students, even with all of the advanced tools available. Technology should be included in education as a whole, not used as an "add-on" to existing teaching strategies. Consequently, while integrating technology into the writing classroom, educators must be aware of their underlying presumptions about teaching and learning [16]; they also need to consider the limitations of the tools they are using [17]. Many authors such as [18] [19] emphasize how crucial it is for instructors to effectively integrate technology into the classroom. According to Garrett [20], instructors are the ones who decide how and why technology is utilized in language instruction. She also emphasized that teachers have a thorough awareness of students' needs. Moreover, Warschauer and Cook [21] clarified that teachers make "learning more meaningful, motivating, and rooted in the personal interests of students" (p. 32). Numerous scholars have examined the various facets of QuilBot. However, there is a dearth of research, particularly from Arabic-speaking countries, examining how instructors evaluate the employment of the AI tool to assess QuillBot's efficacy in enhancing students' paraphrasing abilities. Since instructors' opinions are crucial when incorporating technology into writing classes, this study focuses on this often-overlooked area to answer the following research questions:

1. How effective is QuillBot in improving EFL students' paraphrasing skills from a teacher's perspective?

2. Are there any significant differences in the participants (teachers) in terms of teaching experience and educational qualification?

3. What are the advantages and disadvantages of using QuillBot from a teacher's perspective?

2. LITERATURE REVIEW

The theoretical framework of the current study is consistent with computer-assisted language learning (CALL), a method in which computers, computer-based resources, and teaching and learning applications are used to present, reinforce, and assess learning material [22]. It is assumed that CALL aids language learners in developing their productive and receptive skills. It

can be used and deployed in many different ways, such as by replacing the entire classroom procedure by functioning as a partner in the classroom or replicating a textbook [23]. Language acquisition is seen as a proactive, conscious, and cognitive process that uses CALL and encourages the learner to access and assess their learning [24]. Thus, CALL can thoughtedly establish a social, dynamic, contextual, engaging, and student-owned learning environment [25]. Additionally, it can give students easy access to a wealth of authentic resources that are not readily available through conventional means. Therefore, by offering a range of easily accessible authentic materials, CALL can promote language learning by expanding students' exposure to the language [26]. Language learners have different requirements, interests, styles, and predispositions, and scholars believe that CALL can accommodate these differences by offering variation to language classes. A review by Williams and Beam [27] of 29 empirical publications published between 2002 and 2017 showed that technology-mediated writing education has significantly improved students' composition processes, writing skills, and awareness of new literacies.

Scholars noted that AI-mediated tools, including QuillBot, enhance students' learning experiences. Fithriani and Kurniati [5] note that QuillBot and other AI-mediated IT tools are used to help students become better at paraphrasing. Undoubtedly, it has improved their educational experiences. Students benefit from professional learning chances provided by QuillBot as it is an AI tool that teaches a great deal and virtually eliminates human error. According to Ginting and Fithriani [28], teachers can receive a professional orientation from QuillBot. Similarly, Nurul and Siti [29] investigated, via a quantitative study, the challenges faced by vocational education students majoring in mechanical engineering when it comes to paraphrasing in academic writing courses, as well as how they used online paraphrasing tools to get beyond those challenges. The study found that various online tools for paraphrasing, including paraphrasing-tool.com, QuillBot.com, prepotseo.com, spinbot.com, and the bride, helped students modify their vocabulary, structure, synonyms, parts of speech, and other elements. In addition, in a qualitative study including 20 post-graduate students in English, Kurniati and Fithriani [5] examined QuillBot as a digital tool for academic writing in

English. A semi-structured interview and a questionnaire collected data to trace participants' perspectives. The results of this study indicate that the post-graduate students responded well to using QuillBot to assist them in raising the caliber of their writing. Moreover, Khabib [30] used a sequential explanatory mixed methods study to examine the utilization of AI-based digital writing aids to assist teachers in producing scientific publications. Pre- and post-surveys were the instruments utilized. The findings imply that instructors may be able to write scientific articles using a different approach because of AI-based digital writing assistants. A quantitative study by Amanda et al. [31] sought to determine QuillBot's function in supporting writers of English as a foreign language (EFL). Questionnaires and interviews were used to collect data, which was then collected and examined. The study indicates that students are well-informed about QuillBot's numerous friendly features and favor it to enhance their writing. Similarly, Rakhmanina and Serasi [32] examined the effects of QuillBot using observation, and the results demonstrate several benefits of QuillBot, such as the ability to automatically modify phrases. It also provides further alternatives for paraphrasing, which are not included by default but can be added with a single click. The best thing about this program is that it can paraphrase words as well as sentences. To assess how QuillBot is used to summarize scientific writing produced by students, Fitria [6] used observation, and the findings demonstrate that in situations where manual paraphrasing is not an option. Students can rewrite any text or utilize QuillBot as a substitute tool.

Nazari et al. [33] conducted a study on the effectiveness of an AI-driven writing tool for English second postgraduate students, finding it effective in improving learning behavior and attitudes towards technology adoption through formative feedback and assessment. According to Alammar and Amin [32], students are enthusiastic about embracing AI-driven automatic paraphrasing tools (APTs), perceiving them as beneficial tools with a significant impact on their academic writing process. Zulfa et al. [34] conducted a qualitative study including 73 participants. According to the findings, introducing technology tools into English academic writing can influence the development and assessment of writing abilities. According to Syahnaz and Fithriani [35], using APTs like QuillBot can help students overcome problems

when writing academic EFL papers, improving the quality of their writing. Marzuki et al. [36] did a qualitative study on how AI writing tools affect students' writing quality. Data was gathered from four EFL teachers in Indonesia, demonstrating that these technologies improved content and organization, implying that using AI can improve EFL student writing.

The literature review underscores the positive impact of AI-mediated tools, notably QuillBot, on students' learning and paraphrasing skills. QuillBot stands out for its ability to enhance paraphrasing skills, provide professional learning opportunities, and reduce errors [5]. Online paraphrasing tools, including QuillBot, effectively address various writing challenges, as observed by [29]. Post-graduate students positively responded to QuillBot, using it to enhance their academic writing quality. Furthermore, AI-based digital writing aids have proven beneficial for teachers in streamlining scientific publication production [29]. Students have shown enthusiasm for AI-driven paraphrasing tools, seeing them as advantageous for their academic writing [32]. These studies collectively highlight the potential of AI tools like QuillBot in improving writing skills and learning experiences. However, there remains a research gap, especially in Arabic-speaking countries, regarding how teachers evaluate AI tools like QuillBot in improving paraphrasing abilities. This study aims to address this gap by focusing on the crucial role of teacher input in integrating technology into writing programs.

3. METHODOLOGY

The study evaluated QuillBot's effectiveness in improving students' paraphrasing skills from EFL teachers' perspective at Najran University, KSA. Therefore, a descriptive survey method was employed.

3.1. Population and Sample of the Study

The study population in the third semester of the academic year 2023 comprised EFL teachers (no=50) at Najran University in the KSA. The instructors chosen for the research are associated with PY, Najran University. Their nationalities include Egyptian-American, British, Sudanese, Egyptian, Jordanian, and Indian. Table 1 illustrates how the teachers were grouped based on their years of experience and qualifications.

Eighty percent of the population made up the study sample, which was chosen using a stratified sampling technique based on factors like experience level and educational background. The distribution of the study sample is displayed in Table 1.

Table 1: Distribution Of The Study Sample

Variable	Category	No	%
Experience	-10 years	18	45
	10 and above	22	55
	Total	40	100
Qualification	Master	21	52.5
	PhD	19	47.5
	Total	40	100

3.2. Tools of the Study

A questionnaire concerning QuillBot's efficacy in enhancing students' paraphrasing abilities was developed based on researchers' teaching experience and the available literature [37] [12] [28]. There were ten items in the questionnaire divided into two sections. The first section contains the demographic information about the participants. The second half of the questionnaire consists of items regarding the perspectives of EFL teachers on using QuillBot to improve students' paraphrasing skills. On average, it took 20 minutes to finish the questionnaire. Responses to the questionnaire were given on a five-point Likert scale, with (1) denoting strongly disagree, (2) disagree, (3) neutral, (4) agree, and (5) strongly agree. Besides, a semi-structured interview was conducted to find out about the benefits and drawbacks of QuillBot as well as to seek recommendations for how to make it. function better. The researchers developed the interview questions Based on their teaching background and interaction with earlier research [38] [39] [40]. For around ten to fifteen minutes, a semi-structured interview was conducted by one of the researchers with each participant. Subsequently, Braun and Clarke's [41] qualitative data analysis method was used to content-analyze the interview data. The semi-structured interview questions and the prompts were as follows:
Q: What are the advantages and disadvantages of using QuillBot from teachers' perspective?

3.3. Validity

A jury of ten English language teaching and computer-assisted language learning faculty members reviewed study tools to ensure data collection and maintain wordiness and suggested necessary changes:

The jury of experts suggested using words and expressions that represent the teachers' perceptions as well as experiences about the tool.

The jury advised to include ten items instead of eight.

The jury suggested minimizing the number of questions and using prompts to help teachers use their faculty of imagination.

The jury was advised to stimulate teachers to come up with their perceptions about QuillBot.

To determine the internal consistency of the questionnaire using Pearson correlation coefficients between the items and the linked domains as well as the entire scale, a pilot group of twenty teachers outside the study's primary sample completed the questionnaire. Table 2 displays the outcomes.

Table 2: Internal Consistency Of The Questionnaire (Effectiveness Of Quillbot In Improving Students' Paraphrasing Skills)

No of items	Correlation coefficient	Sig.
1	.581**	.007
2	.687**	.001
3	.681**	.001
4	.687**	.001
5	.746**	.000
6	.676**	.001
7	.489*	.028
8	.562**	.010
9	.699**	.001
10	.531*	.016

significant at (0.01), *significant at (0.05)Table 2 shows significant Pearson correlation coefficients between items and total score at 0.01 and 0.05 significance levels, ranging from 0.489* to 0.746.

3.4. Reliability

The reliability coefficients of the domains were calculated through Cronbach's alpha and split-half methods. The study tool was utilized on a survey of 20 students, and the reliability coefficients are presented in Table 3.

Table 3: Cronbach's Alpha Reliability Coefficients (Effectiveness Of Quillbot In Improving Students' Paraphrasing Skills)

No	Domain	Cronbach's alpha	Split-half Guttman
	Total	0.88	0.80

Table 3 shows high-reliability coefficients, with a Cronbach's alpha coefficient of (0.88) and a split-half reliability coefficient of (0.80), indicating acceptable reliability.

3.5. Data Analysis

The study used statistical software (SPSS) version 23 to analyze data and answer research questions. Consistency and validity were evaluated using the Pearson correlation coefficient. Cronbach's alpha and split-half formulae were used to evaluate the research instrument's reliability. Means, standard deviations, and rankings were computed to answer the first research question. The degree of achievement for the elements and domains of the research tool was determined using a particular grading system, which allowed it to establish the degree of approval based on the given range equation.

Table 4: Criteria For Interpreting The Values Of The Means According To The Range Formula

Degree	Very low	Low	Medium	High	Very high
Mean	1-1.80	1.81-2.60	2.61-3.40	3.41-4.20	4.21-5.00

A t-test for the gender variable was used to answer the second question. Finally, the interviewees' answers were analyzed following Braun and Clarke's (2006) scheme. The data was read and refined. Then, it was classified under main topics and themes. Finally, the results were reported.

4. STUDY RESULTS

4.1. Effectiveness of QuillBot in Improving Students' Paraphrasing Skills

Table 5 shows the means, standard deviations, and ranks for the study samples' responses to the effectiveness of QuillBot in improving students' paraphrasing skills.

Table 5: Descriptive Statistics Of The Effectiveness Of QuillBot In Improving Students' Paraphrasing Skills

No.	Items	Means	Standard	Ra	Level

		deviations	nk	
1	QuillBot is an effective tool to improve students' paraphrasing skills.	3.95	1.037	9	High
2	QuillBot assists students in comprehending complex grammatical structures while paraphrasing.	4.05	.932	7	High
3	QuillBot helps students acquire new vocabulary essential in paraphrasing.	4.35	.975	1	Very high
4	QuillBot helps students make their texts more precise and concrete	4.14	.806	4	High
5	QuillBot helps students reduce writing time by more than half while paraphrasing	4.10	.841	5	High
6	QuillBot strengthens students to develop original ideas while paraphrasing	3.85	.975	10	High
7	QuillBot trains students how to master a variety of linguistic structures	4.15	.662	2	High
8	QuillBot assists students in maintaining the text's originality and uniqueness while paraphrasing	4.00	.641	8	High
9	QuillBot helps students eliminate grammar and other language use/usage errors	4.15	.802	3	High
10	QuillBot facilitates students to write, revise, and edit texts effortlessly	4.05	.749	6	High
	Total effectiveness	4.08	.712		High

Table 5 shows that, overall, teachers' assessments of QuillBot's efficacy in helping EFL students improve their paraphrasing abilities were quite positive, with a mean score of (4.08) and a standard deviation of (0.712). The range of the item scores was 3.85 to 4.35. According to the study samples, QuillBot greatly assists students in learning new words that are necessary for paraphrasing. Additionally, they strongly believe that QuillBot teaches students how to become proficient in a range of linguistic structures, which aids in the elimination of grammatical and other language use/usage problems. Furthermore, QuillBot provides users with extremely high levels of precision and concreteness in their texts. Additionally, it allows students to create, edit, and modify the texts more easily and cuts down on writing time by more than half when paraphrasing.

4.2. The Effect of the Respondents' Educational Qualifications and Experience

Table 6 shows the results of educational qualification on the study sample's responses to the effectiveness of QuillBot in improving the paraphrasing skills of EFL students from teachers' perspective.

Table 6: T-Test For The Differences In The Study Samples' Responses According To Educational Qualification

	Educational Qualification	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Total degree	Master	21	4.10	.673	.228	38	.821
	PhD	19	4.05	.771			

Table 6 demonstrates that there were no statistically significant differences at the (0.05) level in the effectiveness of using QuillBot to improve their paraphrasing skills in the English language as a foreign language among preparatory year students, as perceived by teachers, based on the qualification variable. The significance level for the p-value was greater than (0.05).

Table 7 presents the findings of the experience variable about the study sample's opinions regarding QuillBot's efficacy in enhancing EFL students' paraphrasing abilities from the perspective of their teachers.

Table 7: T-Test For The Differences In The Study Samples' Responses According To Experience

	Experience	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Total degree	-10 years	18	4.22	.726	1.147	38	.259
	10 years and above	22	3.96	.696			

Table 7 illustrates the absence of statistically significant differences at the (0.05) level in the effectiveness of using QuillBot to enhance

students' paraphrasing skills in the English language as a foreign language, as perceived by teachers, based on the experience variable. The p-value exceeded (0.05).

4.3. Semi-structured Interview

A semi-structured interview was carried out with teachers to know their perspectives regarding the advantages and disadvantages of using QuillBot to improve students' paraphrasing skills. The content analysis of the qualitative data revealed that QuillBot is an AI tool that helps students learn grammatical structure and vocabulary, aiding in the development of coherent and logical ideas. It is particularly beneficial for students who are shy or reluctant to participate in class. QuillBot helps students learn unconsciously by paraphrasing for synonyms and improving contextual language use. Here are the excerpts from the interview:

(T1) "QuillBot helps learn grammatical structure and vocabulary."

(T3) "Students had a positive attitude toward QuillBot. This positive approach helped them learn difficult concepts in writing".

(T5) " QuillBot assists students to learn paraphrase and then practice the same in the classroom without the AI tool."

(T8) " As the primary aim of learning to paraphrase it to get good marks in writing, the AI tool is quite helpful in it."

(T14) "QuillBot facilitates the development of coherent and logical ideas; AI writing tools are quite helpful in this regard".

(T18) "QuilBot helps in avoiding the repetitions."

(T20) "Students were very active and enthusiastic in using the QuilBot."

(T25) " AI tool is the best solution to deal with the boredom in a writing class. ."

(T26) "QuilBot develops writing skills in students that they can practically use in their write-ups".

(T29) "QuilBot is quite helpful to the shy students who are reluctant to participate in the class."

(T31) "Students' obsession with the gadgets is best exploited through the AI tools.

(T34) " QuillBot makes students learn many things unconsciously. When they paraphrase for synonyms, they also unconsciously learn the structure.."

(T37) "QuillBot is one of the best tools that is easy to use. The paraphrased text is also of good quality in terms of grammar and vocabulary."

(T39) "QuilBot also improves the contextual use of language."

(T40) "Students were pleased to learn with the AI tool."

However, QuillBot has some disadvantages, such as difficulty accommodating different levels of learners, blocking creative faculty, making some students dependent and overall use of English on the website that makes students learn it difficult. Additionally, the paraphrased versions provided by QuillBot need to be revised for better understanding. QuillBot requires good WIFI, which can delay assignment completion, and excessive screen exposure can cause eyesight issues. Despite these drawbacks, QuillBot remains a valuable tool for students.

(T2) "It is also true some students were not very positive about QuillBot. However, they accepted that it was helpful in some ways".

(T5) It is difficult to accommodate different levels of learners in the same classroom doing the same exercises with all students. The weak students should be provided the extra classes"

(T9) "Too much use of AI blocks the creative faculty of students".

(T11) "QuillBot makes some students dependent. Instead of learning, some students begin to depend on it".

(T15) "QuillBot's features are all in English. Not all the students are comfortable with English".

(T21) "Not all the paraphrased versions provided by QuillBot are easy to understand."

(T25) "The paraphrased version provided by the QuilBot needs to be revised as it is an AI tool and it is good to be checked by human intelligence."

(T29) "QuillBot needs WIFI to be used. When the WIFI is not good, it delays in completing the assignment".

(T 32) "It takes a lot of time to paraphrase all the exercises with students"

(T37) "Too much exposure to the screen creates eyesight issues with students."

(T40) "QuillBot does not facilitate pair and group work for students".

5. DISCUSSION

The results showed that EFL teachers highly rated QuillBot's effectiveness in improving English paraphrasing skills, acquiring new vocabulary, mastering various linguistic structures, eliminating grammar and usage errors, and making texts more precise and concrete. QuillBot, an AI tool, simplifies complex concepts for students, reducing writing time by over half and facilitating effortless text editing, revision, and editing, thus reducing human errors and saving time. The results might be attributed to the fact that the AI tool not only provides the features to hone linguistic competence but also provides sufficient scope to practice language's different components, including syntactic and semantic ones. The findings are consistent with Fitria [6], who states that QuillBot is a timesaving tool that can help select suitable synonyms and enhance text intelligibility. The results corroborate those of another study conducted by Miranda [42], who found that students may enhance their writing quality overall, acquire new vocabulary, and better comprehend the context of a text by using the paraphrase tool. This finding partially corroborates the findings of Zimmerman and Labuhn [43], who suggested that online learning environments could facilitate students' study habits, motivate them to write more actively, feel good about their writing, and inspire them to keep practicing with persistence, confidence, and motivation. The results are in line with another study by Moore and MacArthur [44], who claim that students are eventually motivated to rewrite and to like the writing process more than the final product because they receive real-time feedback via technology. The results also line up with another study conducted by Sulistyaningrum [45], which demonstrates that students could overcome obstacles related to academic writing in terms of content, structure, language use, and paraphrasing techniques with the help of internet resources. The findings align with another study by Kurniati and Fithriani [5], who assert that QuillBot, a paraphraser, enhances academic writing by modifying original sentences. Han et al.'s [46] study found that technological tools positively impact students' self-regulated learning strategies in academic writing by helping them set goals, monitor progress, and revise based on feedback.

The study differs from Chen et al.'s [47] research, which found that both postgraduates and undergraduates struggle with writing appropriate texts due to a lack of online paraphrasing tools and experience, possibly due to different learning levels. The differences might be due to a lack of practice because of a lack of resources like computers, laptops, and the internet. Not all students can afford the gadgets. Moreover, it is also to be considered that the tool might not necessarily meet the requirements of all the courses. The curriculum must be adaptable to the features provided by the AI tool.

In addition, the study found no significant differences in the effectiveness of using QuillBot to improve English paraphrasing skills among preparatory year students, based on teachers' qualifications and experiences. This could be due to teachers using the same curriculum and not being assigned different levels of classes. The researchers did not come across any study with the same findings. However, the findings of this study contrast those of Alshammary et al. [48], who found a minor link between academic qualification, writing skills, and assessment, presumably because of specialized education. The contrast might be because some teachers are specialized and trained in teaching through AI-mediated tools.

Finally, the qualitative analysis found that QuillBot is an AI tool that aids students in learning grammatical structure and vocabulary, especially for shy students. It improves contextual language use and paraphrasing for synonyms. Students actively participate in the classroom activities. However, it faces challenges like difficulty accommodating different learning levels, blocking creativity, and requiring good WIFI for assignment completion. The results might be endorsed because the AI provided one-on-one training to students. It is rewarding for shy students, as the probability of group human interaction is very low. It improves various aspects of language. However, one cannot deny that accommodating different levels of students, as is the case with traditional classrooms, is also a matter of concern with the AI-mediated classroom. Nevertheless, AI has blocked students' creativity, as all the solutions are ready-made. The results of the semi-structured interview align with the findings of Zhang et al.'s [49] earlier study, which suggested that an over-reliance on AI technology could impair one's capacity for critical

and creative thought. The results are consistent with a different study by Gayed et al. [50], which discovered that these tools had some benefits, such as increasing vocabulary and decreasing the use of repetitious language. The results are also consistent with Ouyang et al. [51]. The findings suggested that the AI tool improved students' writing abilities as well as their overall academic achievement. Similarly, these results are consistent with those of Alsmari's [52] study, which concluded that increased student participation was the primary advantage of AI. Teachers' statements in this study's analysis about the drawbacks corroborate Ozer and Badem's [40] findings, which suggest that the apparent disadvantages of online learning seem to exceed their advantages. The results are consistent with another study conducted by Malik et al. [53], which suggested that students might try less to exercise critical thought if they rely too heavily on AI tools. The researchers could not find any study, which could be stated otherwise.

The review of literature emphasized the positive impact of AI-mediated tools, particularly QuillBot, on students' learning experiences and paraphrasing abilities. QuillBot was noted for its role in helping students improve paraphrasing skills, offering professional learning opportunities, and reducing human error [5]. Online paraphrasing tools, including QuillBot, were found to be effective in modifying various elements of writing, overcoming challenges in paraphrasing [29]. Post-graduate students responded positively to using QuillBot to enhance the quality of their academic writing. Additionally, AI-based digital writing aids were found to assist teachers in producing scientific publications more efficiently [30]. Students expressed enthusiasm for AI-driven paraphrasing tools, perceiving them as beneficial for their academic writing process [32]. Overall, the studies highlighted the potential of AI tools like QuillBot in improving students' writing skills and learning experiences. However, there is a gap in research, particularly in Arabic-speaking countries, regarding how teachers evaluate the effectiveness of AI tools like QuillBot in enhancing students' paraphrasing abilities. This study attempted to fill this gap by focusing on the crucial role of teacher input when integrating technology into writing programs. The findings showed that the teachers unanimously found QuillBot to be highly effective in enhancing students' paraphrasing skills, regardless of their qualifications or years of experience. This result indicates that QuillBot's effectiveness in improving paraphrasing skills is consistent across different teacher profiles. The qualitative analysis revealed several key findings regarding QuillBot's impact on students' learning experiences. In addition, QuillBot was found to be beneficial for shy students in learning grammatical structure and vocabulary, enhancing contextual language use, and improving paraphrasing skills for synonyms. Moreover, students were observed to actively participate in classroom activities when using QuillBot. However, the tool faces challenges, including difficulty accommodating different learning levels, potentially blocking creativity, and requiring a good WIFI connection for assignment completion.

6. CONCLUSION

The study aimed to evaluate the effectiveness of QuillBot in improving students' paraphrasing skills from teachers' perspective. The teachers found QuillBot very effective in improving the students' paraphrasing skills. In addition, the teachers' qualifications and years of experience did not make any difference in evaluating the effectiveness of QuillBot to improve students' paraphrasing skills. The findings of the interview were multifaceted, as they did not focus only on the advantages but also the disadvantages of QuillBot. Based on the findings, it is evident that information technology has revolutionized students learning experiences particularly paraphrasing skills by providing them multimedia-rich contents and personalized| learning. It is also apparent that AI-powered tools such as QuillBot assist teachers in presenting engaging material, enhancing students' writing abilities, and enriching their learning experiences. Researchers suggested that universities should offer subscriptions for AI tools, provide Arabic versions for Arabic-speaking students, adapt the curriculum, and provide proper training to enhance QuillBot's features. The study is quite helpful to teachers and students who struggle with demotivated students to improve the most complicated topics in a technical writing class. The study is region-specific and targeted only a small sample of the population. The results might be stated differently if the canvas of the study is expanded in terms of population, context, geographical location, and academic settings. The study recommends that QuillBot be actively used, especially in writing classrooms. The study also

suggests experimenting with other AI tools to evaluate if they have the same effect.

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