Exploring Quillbot Application in Writing Skill: A Study at EFL Higher Education in Indonesia

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Abstract

Recent advancements in artificial intelligence (AI) technology, particularly AI-powered paraphrase tools like QuillBot, have significantly influenced college writing practices. This study explores the impact of QuillBot on sixth-semester English students' academic writing at Universitas Muhammadiyah Makassar. Through qualitative methodology, involving interviews and document analysis, five students were examined to understand their frequency and methods of QuillBot use, its support in the writing process, effects on writing quality and originality, perceptions regarding its academic application, and confidence in its results. Findings reveal that QuillBot enhances productivity by expediting revisions and improving writing clarity and grammar, while preserving originality. However, students remain cautious about its ethical implications in academic assessments. This study contributes nuanced insights into AI's role in enhancing writing skills and underscores the need for ethical guidelines in its educational use. Future research should examine how QuillBot affects students with different levels of writing ability, ranging from beginner writers to advanced writers, providing insight into the benefits and limitations of this tool in supporting various learning needs.

1. Introduction

In recent years, improvements in artificial intelligence (AI) technology have had an important impact on college writing (Jian, 2022). The integration of technology into education has been experiencing a tremendous increase in recent years, encouraged by the desire to prepare students for a digital future (Hayes, 2018). The utilization of a variety of tools and platforms, customized learning experiences, student interaction, and ongoing assessment are highlighted as ways that technology-based learning can boost engagement among students (Syafitri et al., 2022). Among these advancements, AI-powered paraphrase tools have proven to be valuable resources for students, researchers, and authors alike (Fitria, 2021a). These tools provide automated assistance in rephrasing text while maintaining semantic coherence, which results in improved written expression and textual fluency.

An AI-powered paraphrasing tool called QuillBot turns out to be an important assistance for sixth-semester English students who are struggling with the complexities of academic writing. (Xuyen, 2023) discovered that students thought through QuillBot would help them become better paraphrasers and minimize the amount of plagiarism. However, (Nurmayanti & Suryadi, 2023) stated that although QuillBot can help in reducing plagiarism, students are still responsible for making sure that the referenced articles maintain their original meaning.

QuillBot presents itself as a potentially effective way to deal with issues related to academic writing. It helps students improve their writing skills (Amyatun & Kholis, 2023). QuillBot helps students overcome obstacles like synthesizing complicated ideas, effectively organizing thoughts, and following

academic conventions by giving them immediate feedback and suggestions for improvement (Latifah et al., 2024). Its adaptability also extends to language learning activities, which makes it a useful tool for experimenting with and exploring languages. In general, QuillBot provides a user-friendly platform to improve students' academic performance and writing abilities.

Word processing programs, AI writing assistants, and plagiarism detectors all improve writing quality and productivity (KOCAMAN, 2022) and (Godwin-Jones, 2022). But issues like the digital gap and moral dilemmas continue to exist. In order to make sure that technology enhances rather than interferes with learning experiences, instructors and students must adapt as technology develops.

The importance of internet technology in improving students writing abilities even in the face of certain drawbacks like error-checking software and automated grammar correction (Ishonqulov Sherzod Usmonovich, 2023). All things considered, the integration of technology transforms writing and language learning, providing fresh opportunities for creativity, teamwork, and skill improvement.

When it comes to academic writing and language expression, students face a variety of challenges (Aldabbus & Almansouri, 2022). These include effectively structuring ideas and combining complex ideas in an understandable way. Language competency also presents challenges, such as limited vocabulary and grammatical faults (Dwi Putri et al., 2022). Additionally, students frequently struggle to manage their time effectively and balance their other obligations with their academic obligations (Wolters & Brady, 2021). To make matters more difficult, there is additional pressure to generate unique work while abstaining from plagiarism. Finally, a barrier may be a lack of confidence in one's ability to communicate ideas clearly and persuasively. In order to overcome these obstacles and improve students' writing skills and academic performance, they need practice, assistance, and access to resources that are customized for each student.

A number of previous studies have investigated topics related to the title "An Analysis of QuillBot Usage in Writing Among 6th Semester English Students". For example, a previous study have focused on the effects of using automated writing tools in an educational context, exploring how tools such as this tool can save time, increase vocabulary, and help with the complexity of academic writing (Jaladara et al., 2023), beside that it can also improve writing quality, enhance positive attitudes towards writing, and aid language development (Kurniati & Fithriani, 2022). Other studies have compared writing performance between college students who used QuillBot with those who did not use the tool, to assess whether its use improved or diminished their writing ability. By pointing out punctuation and grammar mistakes, QuillBot is helpful to students in improving their English writing, and they view it as a useful substitute for more conventional writing instruments (Amanda Amanda et al., 2023). A study has also conducted a qualitative analysis of the use of QuillBot in writing, focusing on the strategies students use in integrating the tool's results into their written work. By rearranging words, phrases, and clauses, adding synonyms, altering the sentence structure, and breaking up information into distinct sentences, QuillBot can effectively paraphrase scientific writing produced by students (Fitria, 2022). Lastly, a study that looked at issues like originality, plagiarism, and intellectual responsibility examined the ethical ramifications of using automated writing tools in a learning environment. Brings up the topic of fake academic writing and the requirement for precise rules and regulations to guarantee the moral application of AI-powered technologies (Caprioglio, 2023).

Although several previous studies have revealed the benefits of using QuillBot in improving writing skills, correcting grammar mistakes, and expanding vocabulary, there is still a lack of understanding of how this tool is concretely used by students in their writing process, especially in the context of developing advanced academic writing skills.

With the use of QuillBot, an artificial intelligence tool, students can improve their grammar and produce more creative writing by paraphrasing and rewriting English texts (Fitria, 2021b). Therefore, the use of QuillBot should prioritize the quality and appropriateness of the sentence context in its paraphrase results. This current study has similarities with the three previous studies mentioned, especially in how this tool improves students' English writing skills. One of the most relevant is (Amanda Amanda et al., 2023) which focuses on students seeing it as a useful substitute for more conventional writing tools.

However, there is a lack of research on the utilization of QuillBot by English 6th semester students in the literature that currently exists on AI-powered paraphrase tools. There is a distinct lack of research explicitly looking into QuillBot's effects on students at this academic level, even if studies may touch

on general trends in the use of AI tools or examine the effectiveness of paraphrase technologies in language learning situations. As such, there is a limitation of empirical data on its efficacy, difficulties, and consequences for writing proficiency among English sixth-semester students. This disparity emphasizes the necessity for focused research to meet the particular requirements and experiences of this particular student population.

This study attempts to look into how sixth-semester English students use and benefit from QuillBot. The purpose of this study is to find out how often and in what ways students use QuillBot, evaluate how well QuillBot supports the writing process, analyze how QuillBot affects the originality and quality of writing results, examine students' feelings about QuillBot's application to academic writing and language studies, do they feel assured in the results produced by QuillBot.

2. Method

Research Design
To analyse the research, this study used qualitative methodology. Qualitative research is an effective method for gathering detailed textual information about a specific population's values, behaviour, opinions, customs, and social context (Mallik, 2020). This is in accordance with the purpose of the study, which is to investigate the perceptions of Semester 6th English students regarding the use of QuillBot as an academic writing tool.

Research Subject
This study was conducted at Universitas Muhammadiyah Makassar, where five sixth-semester English education majors were selected to participate. Purposive sampling was used to select the participants according to the research objectives. In this case, language ability is one of the requirements that must be met by the selected participants. Another requirement that must be met by the selected participants is that they must be experienced in using QuillBot to write scientific papers.

Research Object
The object of this study was all 6th-semester students of English Language Program at Universitas Muhammadiyah Makassar. This research adopts a qualitative approach, and the sample was purposively selected to gain in-depth insights. The sample consists of 5 students who actively use QuillBot in their writing assignments. Through in-depth interviews and document analysis, this study aims to understand the motivations, experiences, and the impact of QuillBot usage on students' writing skills.

Research Instrument
Questionnaires and interviews provided the study's data sources. The survey was distributed through Google Forms and comprised closed-ended questions with a yes-or-no scoring system. Using the information from the questionnaire, the researcher created interview questions for semi-structured interviews. The aim of the comprehensive interview was to extract additional information concerning the respondents' responses to the questionnaire. The interview session involved five participants. The interviews were audio recorded with the participants' consent. The transcriptions of the recordings were then made before the data analysis phase.

Techniques of Data Collection
To collect data for the research using a qualitative approach, the researcher employed in-depth interviews and participatory observation techniques. In-depth interviews were conducted with several sixth-semester students who use QuillBot in their academic writing. The interview questions were designed to explore their experiences, perceptions, and the impact of QuillBot on their writing skills. Additionally, participatory observations were carried out during writing sessions where students used QuillBot, aiming to understand the context and manner of its use directly. The data gathered from the interviews and observations were analysed thematically to identify key patterns and themes related to the use of QuillBot in the students' writing processes.

Techniques of Data Analysis

The study employs qualitative data analysis techniques to understand the nuances of how students utilize QuillBot in their writing processes. Data was collected through semi-structured interviews, where students shared their experiences and perspectives on the tool's efficacy, integration into their writing routine, and its impact on their writing skills. Thematic analysis was conducted to identify recurring themes and patterns, such as the students' perceptions of QuillBot's ability to enhance their vocabulary, improve sentence structure, and provide alternative phrasing. By coding and categorizing these themes, the research provides in-depth insights into the students' dependency on the tool and its perceived benefits and limitations in the context of their academic writing development.

3.   Results and Discussion ← 12pt, Times New Roman, Bold

3.1 Results

The study aimed to uncover how frequently and in what ways students utilize QuillBot, assess the tool's support for the writing process, analyse its impact on the originality and quality of writing, and examine students' perceptions of QuillBot's application in academic writing and language studies. Additionally, it sought to understand how confident students feel about the results produced by QuillBot.

These findings will be explained in detail in the following sections, providing a comprehensive analysis of each aspect and its indicators based on the interview responses.

1.   Frequency and Usage of QuillBot by Students

The frequency of use aspect measures how often students incorporate QuillBot into their writing process, revealing that many students use it quite regularly, particularly for quick revisions and grammar corrections. The ways of use aspect identify that QuillBot is predominantly used during the revision stage rather than for creating new content. This indicates that students primarily rely on QuillBot to ensure their writing is error-free and readable rather than for generating initial drafts.

Based on the interview, students use QuillBot quite frequently, especially when they need quick revisions or grammar fixes. QuillBot is predominantly used during the revision stage rather than content creation. This indicates that students rely on QuillBot to ensure their writing is error-free and easier to read. This is exemplified by a students' statement:

"I use QuillBot quite often, especially when I need quick revisions or grammar corrections. I mostly use it for quick revisions, ensuring error-free writing, consistency with commonly used language, and readability."

2.   Evaluation of QuillBot's Support in the Writing Process

The support for the writing process aspect evaluates how effectively QuillBot aids students during their writing, particularly in the revision phase. It highlights that QuillBot significantly speeds up the revision process by providing automatic suggestions and correcting grammar, spelling, and sentence structure. The writing productivity aspect further emphasizes that using QuillBot enhances productivity by reducing the time required for editing and making the revision process more efficient.

QuillBot plays a significant role in the revision stage, aiding in improving grammar, spelling, and sentence structure. Students feel that QuillBot can enhance their productivity by speeding up the revision process and reducing time spent on editing. This is exemplified by a students' statement:

"Yes, Quillbot can increase productivity by speeding up the revision process and reducing the time spent on editing."

QuillBot also assists students in understanding the rules of grammar and sentence structure through the suggestions provided. This is exemplified by a students' statement:

"Yes, Quillbot can help understand and correct common errors in English."

3. Impact of QuillBot on Authenticity and Writing Quality

The impact on writing originality aspect assesses whether QuillBot maintains the authenticity of the students' work. Findings indicate that QuillBot helps improve writing without altering the original meaning, thus preserving the originality of the text. The improvement in writing quality aspect measures enhancements in writing clarity, grammar, and readability, showing that students have observed notable improvements in these areas since they started using QuillBot.

Students feel that QuillBot can help improve writing without altering the original meaning, thus maintaining authenticity. This is exemplified by a students' statement:

"Quillbot can help improve the writing without changing the original meaning, so the originality is maintained."

Although there are situations where QuillBot suggestions may change the original meaning if not contextually appropriate, overall, students see an improvement in the clarity, grammar, and style of their writing since using QuillBot. This is exemplified by a students' statement:

"In some cases, sometimes, Quillbot can change the original meaning if the suggestions given do not match the context."

4. Students' Perception of QuillBot's Application to Academic Writing and Language Studies

The perception of academic use aspect explores students' views on using QuillBot in an academic setting. It reveals that while QuillBot is beneficial, students need to be cautious as using such tools in exams or academic assignments might be considered unethical. The impact on English language skills aspect evaluates how QuillBot helps students improve their language abilities, showing that it assists in understanding and correcting common English mistakes and expanding their vocabulary.

Students feel more confident in their writing results when using QuillBot because their writing has gone through an automated revision process. This is exemplified by a students' statement:

"I feel more confident because Quillbot helps correct errors and improve the quality of writing."

However, they are also aware of the importance of manually checking the relevance and accuracy of each suggestion. Some students feel somewhat dependent on QuillBot but still strive to develop writing skills independently. Regarding QuillBot's use in exams or academic assignments, students are cautious as it could be deemed unethical. This is exemplified by a students' statement:

"I trust most of Quillbot's suggestions, but I also check the relevance and accuracy of each suggestion. The accuracy level is quite high, but it still requires manual checking."

5. Students' Confidence in the Results Produced by QuillBot

The confidence in writing results aspect measures the level of assurance students feel regarding their writing after it has been revised by QuillBot. It shows that students feel more confident in their final outputs, knowing that their work has undergone automatic revision. The accuracy and relevance of suggestions aspect assesses how much students trust QuillBot's recommendations, indicating that while most suggestions are trusted, students still manually check them for accuracy and relevance to ensure the highest quality of their work.

Most students trust the suggestions provided by QuillBot and feel that it is reliable in checking grammar and spelling, albeit not perfect. They also believe that QuillBot helps them produce texts that are easier for readers to understand and enhances their writing skills. Students view QuillBot as an effective tool in improving the technical aspects of writing, thereby aiding in focusing on the creative aspects. This is exemplified by a students' statement:

"Quillbot is considered more effective compared to other tools."

3.2 Discussion

The findings of this study show that students often use QuillBot, especially for quick revisions and grammar corrections. This aligns with previous studies on digital writing tools that show a preference for tools that speed up the revision process (Afrin et al., 2021). Unlike tools focused on content creation, QuillBot's strength lies in improving existing content, which students find helpful for ensuring their writing is error-free and readable. This usage pattern shows that students value QuillBot more for its corrective abilities rather than for creating initial drafts, highlighting its role as a supplemental tool rather than a primary writing tool.

QuillBot significantly enhances the writing process by speeding up revisions and increasing productivity. This supports findings by (Conijn et al., 2022), which showed that automated writing tools help reduce the mental effort associated with editing. The automatic suggestions provided by QuillBot not only correct grammar and spelling errors but also help students understand grammatical rules and sentence structures. This dual role of correcting and educating distinguishes QuillBot from other tools that may only offer surface-level corrections.

The study shows that QuillBot helps maintain the originality of students' work while improving clarity, grammar, and readability. This finding contrasts with concerns from earlier studies (McCarthy et al., 2019) that suggested automated spelling and grammar checking tools contribute to modest, incremental improvements in writing quality. Instead, students report that QuillBot's suggestions are contextually appropriate and enhance the quality of their writing without altering its meaning. This indicates that QuillBot effectively balances preserving originality and improving text quality.

Students see QuillBot as a valuable aid in academic writing and language studies, but remain cautious about its ethical implications. The tool's ability to help users understand and correct common English mistakes and expand their vocabulary is seen as a significant educational benefit. This perception aligns with research by (Selfa-Sastre et al., 2022), which highlighted the role of digital tools in language learning. However, the ethical concerns about using QuillBot in exams or assignments underscore the need for clear guidelines on the appropriate use of such tools in academic settings.

Students generally feel more confident in their writing results after using QuillBot, trusting its automatic revisions while still manually checking for accuracy and relevance. This trust in automated suggestions aligns with findings by (Mosquera Gende, 2023), who noted that students often rely on digital tools for final revisions. However, the manual checking indicates an awareness of the limitations of automated tools and the importance of human oversight. This balanced approach suggests that while QuillBot enhances confidence, it does not replace the need for critical engagement with one's writing.

This study provides valuable insights into how students use QuillBot, emphasizing its role in revision, support for the writing process, and impact on writing quality and confidence. While students find the tool beneficial, especially for enhancing writing clarity and grammar, they remain aware of the ethical implications and the need for manual oversight. These findings contribute to a nuanced understanding of the role of AI writing tools in academic contexts and highlight the importance of developing guidelines for their ethical and effective use. Further research could explore the long-term

impacts of such tools on writing skills and their applications in diverse educational and professional contexts.

4. Conclusion

QuillBot significantly aids students in the revision process, increasing productivity by speeding up revisions and improving the quality of writing without altering the original meaning. Students feel more confident in their writing results after using QuillBot, although they remain aware of the importance of manual checking to ensure accuracy and relevance. While QuillBot is beneficial in an academic context, there are ethical concerns regarding its use in exams or academic assignments. Overall, QuillBot is considered an effective tool for enhancing the technical aspects of writing and supporting the English language learning process. Future research should examine how QuillBot affects students with different levels of writing ability, ranging from beginner writers to advanced writers, providing insight into the benefits and limitations of this tool in supporting various learning needs.

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