



Enhancing EFL Writing Proficiency through an AI-Integrated Platform: QuillBot's Role in Learners' Engagement and Skill Development

Ghazali Takary¹, Sabrina^{2*}

^{1,2}English Education Department, Universitas Serambi Mekkah, Indonesia

*sabrina@serambimekkah.ac.id

ABSTRACT

This study explored the integration of artificial intelligence (AI), particularly QuillBot, into English as a Foreign Language (EFL) instruction at Universitas Serambi Mekkah (USM). As digital tools become increasingly significant in education, AI technologies like QuillBot provide students with real-time writing assistance, helping them refine grammar, paraphrase text, and develop vocabulary. This research investigated how QuillBot is utilized by EFL lecturers and students, its pedagogical impacts, and the challenges of incorporating such AI tools in academic writing contexts. Employing a mixed-methods approach, the study collected quantitative data from 30 students and qualitative insights from interviews with 5 lecturers. Findings revealed that QuillBot significantly enhances learner engagement, confidence, and writing fluency, particularly through features such as paraphrasing and grammar correction. While students reported increased motivation and reduced writing anxiety, lecturers acknowledged its usefulness in large classes but expressed concerns about over-reliance and reduced critical thinking. The study highlights both the pedagogical potential and ethical considerations of AI tools in regional university contexts. It underscores the need for structured AI integration, student training in digital literacy, and the development of institutional guidelines to ensure responsible and effective use.

Keywords: *QuillBot, artificial intelligence, EFL, Universitas Serambi Mekkah, writing proficiency, technology in education*

1. INTRODUCTION

In recent years, the integration of artificial intelligence (AI) into educational practices has redefined how learning occurs across disciplines. Within the realm of English as a Foreign Language (EFL) instruction, AI has introduced new opportunities to enhance writing proficiency, facilitate feedback, and support autonomous learning. These tools hold particular relevance in Indonesia, where regional universities often seek cost-effective solutions to improve language education amid infrastructural and pedagogical limitations.

Universitas Serambi Mekkah (USM), located in Aceh, Indonesia, represents one such institution navigating the digital transformation of higher education. As students gain increased access to mobile technologies and online resources, their exposure to AI-based writing assistants such as QuillBot, ChatGPT, Write & Improve, and Google Docs AI is becoming more commonplace. However, while QuillBot is frequently used for paraphrasing, synonym suggestions, and grammar correction, its integration into formal pedagogical settings remains underexplored.

This study investigates how QuillBot is utilized by USM students and lecturers in EFL contexts, analyzing its effects on learner engagement, writing improvement, and academic behavior. In particular, it aims to understand the role of AI in supplementing classroom instruction and the challenges it poses to traditional teaching methodologies. The research also addresses the broader implications of AI use for curriculum development and policy formation in regional Indonesian universities.

2. LITERATURE REVIEW

The adoption of AI in second language writing instruction has garnered considerable scholarly interest. Tools like QuillBot, which offer paraphrasing, summarization, and grammar feedback functionalities, are praised



for improving lexical range and syntactic variety in student writing (El-Garawany, 2024). QuillBot's AI-driven interface allows users to rephrase input text in various styles (e.g., formal, fluent, or simple), making it attractive for EFL learners seeking clarity and precision.

A growing body of literature supports the claim that such tools enhance writing fluency and learner autonomy. Godwin-Jones (2022) emphasized that AI technologies, when used appropriately, promote self-directed learning by providing instant, personalized feedback. Similarly, Youn et al. (2025) argued that AI tools empower learners to revise and edit more effectively, especially in contexts where teacher feedback is limited due to large class sizes or limited resources.

However, other researchers caution against over-reliance on these tools. Zhai et al. (2024) raised concerns about the misuse of AI writing assistants, noting that without proper guidance, may affect students' cognitive competence. Moreover, Vargas-Murillo (2023) and Joseph et al. (2023) emphasized the importance of digital literacy in ensuring ethical and effective AI tools usage.

QuillBot, in particular, has received attention for its capacity to scaffold paraphrasing and summarizing, skills critical to academic writing. Studies by Malon et al. (2024), Nuraeni et al. (2025), Gürbüz (2024), and Syahnaz & Fithriani (2023) highlighted that QuillBot can significantly improve the content, grammar, and language of their writing, leading to improved quality. However, students are encouraged to use it alongside critical thinking and guidance from their teachers.

Despite these insights, there is limited research on QuillBot's implementation by EFL learners at the university level, especially at Universitas Serambi Mekkah. This study contributes to the literature by examining the application and perceptions of QuillBot within a regional Indonesian university, shedding light on both the opportunities and challenges of AI-enhanced writing education.

3. METHODS

This study employed a mixed-methods approach to capture both quantitative and qualitative data regarding the use of QuillBot in enhancing EFL writing proficiency among students at Universitas Serambi Mekkah (USM). The research sample consisted of 30 undergraduate students enrolled in the English Education Department and 5 lecturers involved in EFL instruction and writing courses.

Quantitative data were collected via a structured questionnaire designed to measure students' frequency of QuillBot usage, perceived usefulness, engagement level, and self-assessed writing improvements. The questionnaire incorporated Likert-scale items, allowing statistical analysis of central tendencies and correlations between AI tool usage and learner outcomes.

Qualitative data were gathered through semi-structured interviews with lecturers, aiming to explore their perspectives on integrating QuillBot into teaching practices, observed student behaviors, and concerns about academic integrity. Additionally, classroom observations were conducted during writing workshops where QuillBot was introduced as a supplementary aid.

Data analysis involved descriptive statistics for survey responses and thematic analysis for interview transcripts and observational notes, following Braun and Clarke's (2006) framework. This triangulation method ensures comprehensive insights into the pedagogical impacts and challenges of QuillBot use.

4. RESULTS

4.1 Student Engagement and Usage Patterns

Quantitative data from the structured questionnaire, completed by 30 students, revealed high engagement with QuillBot. A total of 87% of respondents reported using the tool at least twice per week when completing writing assignments. The most commonly used features were paraphrasing (92%), grammar correction (78%), and vocabulary enhancement (65%).



Students assessed various usability and engagement dimensions using a 5-point Likert scale. The tool's user interface received a mean score of 4.2, indicating general ease of use. The immediate feedback function was rated at 4.1, suggesting that students valued real-time support in editing their writing. These scores reflect positive user experience and regular engagement with QuillBot features.

4.2 Students' Perceived Impact of Quillbot on Writing Skills

In terms of perceived impact, 80% of students either agreed or strongly agreed that QuillBot improved their sentence variety and coherence, while 70% stated it motivated them to write more frequently due to reduced anxiety about grammatical errors. However, only 53% believed that it significantly enhanced their grammar understanding, implying that while the tool assists in revision, it may not replace foundational grammar instruction.

Self-assessed improvement in writing fluency and confidence also showed moderate agreement (mean score 3.9), while perceived gains in critical thinking or independent editing were slightly lower (mean score 3.6), indicating mixed views on deeper learning outcomes.

Correlation analysis showed a modest positive relationship ($r = 0.46$) between the frequency of QuillBot use and self-reported improvement in overall writing proficiency, aligning with the assumption that regular engagement with digital writing tools may support skill development.

4.3 Lecturers' Perspectives

Interviews revealed a generally positive attitude towards QuillBot as an assistive tool, especially for large classes where individualized feedback is limited. Lecturers observed increased student confidence and willingness to draft multiple versions of texts. Yet, there had concerns about potential over-reliance and reduced critical thinking as expressed below:

Excerpt 1:

L1: *"QuillBot helps students find other ways to express ideas, but we must make sure they really understand them and don't just copy them."*

Theme: Understanding vs. Imitation

This theme reflects concerns about surface-level learning. While AI can expose students to new ways of phrasing, there is a risk of uncritical copying rather than genuine comprehension.

Excerpt 2:

L2: *"I noticed students are more confident when using Quillbot and submitting their drafts. The results are out in seconds, like magic! But do they know when not to trust the output? AI sometimes can make up things!"*

Theme: Confidence vs. Critical Evaluation of AI Output

The theme here is the duality between empowerment and blind trust—while AI boosts confidence, it may also cause students to over-rely on or misjudge AI-generated content.

Excerpt 3:

L3: *"For students who are still not good at writing, QuillBot is useful. It helps reduce their fear of making mistakes and makes them want to try more."*

Theme: Lowering Affective Filters in Writing

This theme emphasizes AI as a motivational and affective support tool—helping less proficient students feel more comfortable and willing to write.

Excerpt 4:

L4: *"Umm, it's a dilemma... Sometimes it can be good, sometimes it can be bad. Yes, It helps students correct grammar, but they still need to learn the rules. If they just accept the changes without thinking, they will not improve."*

Theme: Dependency vs. Skill Development



This theme reflects the tension between using AI for support and hindering the acquisition of core writing competencies, especially grammar awareness.

Excerpt 5:

L5: *“Rather than students using Quillbot dishonestly, I think it’s good to let them use it in writing. We can even integrate it into our writing modules, but with clear ethical boundaries. Students must learn how to use it as a learning partner, not as a shortcut. They also must be transparent by declaring AI use only for brainstorming ideas and not writing the whole paper.”*

Theme: Ethical Integration and Responsible AI Use

The theme centers on pedagogical ethics and transparency, recognizing QuillBot’s utility, but calling for structured integration with academic honesty and AI literacy.

4.4 Challenges and Ethical Considerations

Both students and lecturers reported challenges, including inconsistent internet access affecting tool availability and the risk of academic dishonesty. Lecturers emphasized the need for explicit guidelines on responsible AI use to prevent plagiarism and promote integrity.

5. DISCUSSION

This study examined the integration of QuillBot, an AI-powered writing assistant, into English as a Foreign Language (EFL) instruction at Universitas Serambi Mekkah (USM), focusing on its impact on student engagement, writing proficiency, and the challenges associated with its use. The findings align with and expand upon existing literature on AI tools in EFL contexts.

5.1 Enhancing Student Engagement and Writing Proficiency

The positive reception of QuillBot among USM students mirrors findings from similar studies. For instance, Nuraeni et al. (2025) and Malon et al. (2024) reported that EFL students perceived QuillBot as a valuable tool for improving their writing skills, particularly in paraphrasing and avoiding plagiarism. Similarly, Syahnaz and Fithriani (2024) found that students at the university level believed QuillBot facilitated better writing by reducing errors and enhancing writing quality. These studies underscore the potential of AI tools to foster a more engaging and supportive writing environment.

Furthermore, the study’s findings are consistent with those of Gürbüz (2024), who observed that Turkish EFL learners experienced improvements in writing quality when using QuillBot as an automated writing evaluation tool. The positive impact on writing quality and the favorable assessments of the software and automated writing experiences highlight the effectiveness of AI tools in enhancing writing proficiency.

5.2 Lecturers’ Perspectives and Pedagogical Considerations

The lecturers in the current study expressed both optimism and caution regarding QuillBot's use, reflecting concerns raised by Gürbüz (2023), Joseph et al. (2023), Vargas-Murillo (2023), and Zhai et al. (2024), who emphasized the importance of balancing AI tool usage with traditional teaching methods and digital literacy to prevent over-reliance and ensure the development of critical thinking skills. Moreover, Balalle and Pannilage (2025) highlighted the need for clear guidelines on AI tool usage to maintain academic integrity and prevent misuse. Their study suggests that while AI tools like QuillBot can enhance writing skills, they should be integrated thoughtfully into the curriculum.

5.3 Challenges and Ethical Considerations

The challenges identified in this study, such as over-reliance on AI tools and concerns about academic integrity, are consistent with those reported in other research. For example, Syahnaz and Fithriani (2023) noted that while students appreciated the assistance QuillBot provided, they also recognized the importance of manual checking and revision to ensure accuracy and maintain academic standards. These findings highlight the necessity



of developing AI literacy among students and establishing ethical guidelines for AI tool usage in academic settings.

6. CONCLUSION

In conclusion, the integration of QuillBot into EFL instruction at USM has shown promising results in enhancing student engagement and writing proficiency. However, to maximize its benefits and mitigate potential drawbacks, it is essential to provide students with proper training in AI literacy and establish clear ethical guidelines for AI tool usage. Future research should explore the long-term effects of AI-assisted writing on various writing genres and across diverse educational contexts to further inform best practices in AI integration in language education.

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