

Balancing Precision and Voice: A Qualitative Study of QuillBot's Role in Enhancing EFL Students' Writing Skills

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Abstract

This qualitative study investigates the role of the AI-powered writing assistant QuillBot in enhancing the writing skills of secondary-level English as a Foreign Language (EFL) students in Indonesia. Twenty participants engaged with QuillBot over an eight-week period during writing assignments. Data were collected through semi-structured interviews and analysis of pre- and post-intervention writing samples. The findings indicate that QuillBot contributed significantly to improvements in grammar, sentence structure, and vocabulary usage. Non-native English speakers, in particular, demonstrated notable gains in mechanical accuracy and lexical variety. However, the tool's limitations became apparent in areas requiring higher-order thinking, such as content development, coherence, and creativity. A subset of students expressed concern about over-reliance on the tool, reporting decreased confidence when writing independently and a perceived loss of personal voice in their work. Engagement was initially high but declined over time, suggesting the novelty of AI feedback may diminish without sustained pedagogical scaffolding. The study highlights the dual potential of AI writing tools to support surface-level writing improvements while risking dependence and reduced autonomy. Implications include the need for balanced instructional approaches that combine AI feedback with human guidance to preserve critical thinking and authorial identity. Recommendations for future research include longitudinal studies and hybrid models integrating teacher- and AI-mediated feedback.

Keywords: *AI writing assistant, EFL writing, academic writing, student voice*

INTRODUCTION

Writing is a critical skill in education, essential for communication, academic success, and personal expression. In an increasingly digitized knowledge economy, written language mediates not only classroom achievement but also participation in civic discourse and knowledge work (Trần, 2024; , Nadhifah et al., 2024). However, many students struggle with aspects of writing such as grammar, coherence, and vocabulary (Abduljawad, 2025; , Wang, 2024). In recent years, the use of Artificial Intelligence (AI) tools in education has gained attention for its potential to assist students in overcoming these challenges (Wu, 2024). Among these tools, QuillBot stands out as an AI-powered writing assistant that helps students by suggesting grammar corrections, paraphrasing sentences, and improving vocabulary (Duncanson, 2024). Studies indicate that AI writing tools enhance grammatical accuracy and provide immediate feedback, which is crucial for students' development in writing (Mahmud, 2023; , Hutson et al., 2024). Furthermore, these tools

promote self-regulation and critical thinking in the writing process (Kong et al., 2024; , Al-Raimi et al., 2024).

Although studies have examined AI tools in writing instruction (Lee & Kim, 2021), the qualitative impact of these tools, especially QuillBot, on student writing skills remains underexplored. This research investigates the role of QuillBot in enhancing student writing by analyzing its effects on student performance, creativity, and dependence on technology.

Traditionally, writing instruction has been teacher-centered, with educators providing feedback on students' written work in the form of corrections, suggestions, and grades (Wang, 2024). While this method has been useful, it often lacks the immediacy and personal engagement that students need to develop their writing skills effectively. As a result, many students do not fully comprehend their mistakes or grasp the areas in which they need improvement. This gap has led to the exploration of alternative teaching methods that can enhance the learning experience and provide students with the tools to improve their writing independently.

One of the promising solutions that have emerged in recent years is the integration of technology into writing instruction. The rapid advancement of digital tools and applications has created new opportunities for personalized, real-time learning experiences (Alharbi, 2023). Among these, AI-powered applications have garnered significant attention for their potential to support students in writing development. AI-based writing tools, such as Grammarly, Hemingway, and the Quillbot application, use algorithms to analyze and evaluate written content, providing students with automated feedback on grammar, syntax, style, and coherence (Nazari et al., 2021). These applications offer an innovative approach to addressing the challenges faced by students in writing, giving them instant feedback and guidance to improve their skills.

The Quillbot application, in particular, has gained popularity due to its unique features that combine artificial intelligence with personalized learning. Quillbot offers students real-time suggestions for improving their writing by analyzing their work at multiple levels, including grammar, structure, coherence, and vocabulary. The application also provides students with writing prompts and exercises to encourage creativity and critical thinking (Patiño et al., 2020). Through these features, Quillbot aims to empower students to take control of their writing process, identify areas for improvement, and continuously refine their skills.

Despite the growing interest in AI-based writing tools, there is limited research exploring the effectiveness of specific applications like Quillbot in enhancing students' writing skills (Fitria, 2021). While some studies have highlighted the positive impact of AI tools on writing proficiency, the majority of research has focused on tools like Grammarly or other widely used applications (Wu, 2024), leaving a gap in understanding the potential benefits and challenges of more specialized platforms like Quillbot. Moreover, the integration of AI in education presents its own set of challenges, including the accessibility of technology, students' comfort with digital tools, and the extent to which AI feedback can replace human instruction in providing comprehensive and nuanced writing guidance (Fitria, 2021).

This study seeks to address this gap by examining how the Quillbot AI-based application can be utilized to enhance students' writing skills in a secondary school context. Specifically, this research aims to explore students' experiences with the application, how they perceive its impact on their writing abilities, and the challenges they encounter when using it. Additionally, the study will investigate the role of teachers in facilitating the integration of the application into the

classroom and how it complements traditional writing instruction (Parra-Gavilánez & Sánchez, 2019).

In exploring these aspects, the research aims to provide valuable insights into the practical application of AI-based tools in the teaching of writing and contribute to the broader discourse on the role of technology in education. As schools and educators seek to equip students with the skills needed for success in the digital age, understanding how AI tools like Quillbot can be leveraged to enhance writing instruction is an important step toward creating more effective, engaging, and personalized learning environments for students.

This study is significant because it not only examines the potential of AI-based applications in improving writing skills but also highlights the need for comprehensive teacher training and student support in using such tools effectively. Furthermore, it will offer recommendations for educators and policymakers on how to integrate AI applications into writing curricula in ways that maximize their educational value.

AI writing tools have become increasingly integrated into educational settings. These tools promise benefits in improving writing proficiency by providing immediate feedback, correcting errors, and suggesting alternative word choices (Galloway & Liu, 2021). According to Kim & Lee (2020), AI applications like QuillBot help students improve technical aspects of writing such as grammar, spelling, and sentence structure, which are crucial for academic success. Additionally, AI tools provide personalized feedback, which can be particularly beneficial for non-native speakers (Zhang & Liu, 2020).

However, some studies highlight concerns about the over-reliance on these tools. Zhang & Liu (2020) argued that while AI tools can enhance technical aspects, they may undermine students' ability to think critically or develop their own writing style. The rapid suggestions made by AI might encourage passive learning rather than active engagement with the writing process, which can limit students' creativity and problem-solving abilities (Stewart & Lee, 2022). Furthermore, over-dependence on such tools could prevent students from developing self-editing skills and deeper understanding of the writing process (Chen & Li, 2021).

In light of these concerns, it is important to explore both the benefits and challenges of using AI writing assistants like QuillBot in the classroom. This study contributes to this understanding by focusing on students' perceptions of QuillBot and its effects on their writing development.

The integration of Artificial Intelligence (AI) in educational tools has led to significant transformations in language learning, particularly in the development of writing skills. In recent years, AI-based tools such as QuillBot, Grammarly, and others have gained traction for their ability to assist students in enhancing the quality of their writing. This section reviews various studies to provide a comprehensive understanding of the effects and potential of AI tools like QuillBot in writing education.

AI in Education and Writing Skills

AI applications in education have shown promise in improving writing skills, particularly by offering personalized learning experiences and feedback. Studies have demonstrated that AI-driven platforms can offer real-time, context-aware feedback, which is often unavailable in traditional classroom settings (Bryant & Matthysee, 2018). Such platforms also offer students the

ability to experiment with language by providing suggestions for synonyms, sentence rephrasing, and overall text improvement.

In their study, Lee and Chen (2020) highlight that AI-based applications allow for a more individualized approach to writing, enabling students to identify specific areas of improvement such as grammar, syntax, and vocabulary. Furthermore, AI tools can help students engage in the iterative process of writing by providing suggestions for revisions and improvements, making writing a more dynamic and personalized experience.

QuillBot and Paraphrasing Tools

QuillBot is one of the most commonly used AI tools for paraphrasing and improving writing. Several studies have explored its functionalities, particularly its ability to enhance sentence structure and vocabulary. Johnson (2021) conducted a study on the use of paraphrasing tools like QuillBot and found that students who used such tools regularly saw improvements in their writing fluency and cohesion. By providing alternative ways to express ideas, QuillBot helps students avoid repetitive phrases, reduce redundancy, and develop more complex sentence structures.

However, some studies have raised concerns about the over-reliance on paraphrasing tools, warning that it might reduce students' critical thinking and creativity (Shin, 2019). According to Park et al. (2022), while tools like QuillBot can help refine a student's writing, they may also lead to a passive learning approach where students depend on the AI tool rather than engaging deeply with the writing process.

Enhancing Vocabulary and Style

The ability to expand one's vocabulary is another significant advantage of using AI-based writing tools. Studies have shown that tools like QuillBot expose students to a broader range of vocabulary, enabling them to express ideas more clearly and succinctly. In a study by Marshall (2020), students using AI-powered writing assistants reported an increased ability to use more sophisticated vocabulary and varied sentence structures in their academic writing. This is particularly beneficial for non-native English speakers who may struggle with lexical choices and fluency.

AI tools like QuillBot also help students achieve consistency in their writing style. By offering suggestions to maintain tone and formality, the tool assists in creating more cohesive and polished pieces of writing (Gao & Yu, 2021). As such, QuillBot can be an essential tool in fostering students' language proficiency, especially in academic contexts.

Academic Integrity and Ethical Concerns

While AI tools offer numerous benefits, ethical concerns surrounding their use have also been discussed in academic literature. One primary concern is the potential for plagiarism, especially when students rely on AI paraphrasing tools without understanding the importance of citation and originality in academic writing (Smith & Patel, 2020). QuillBot and similar platforms have the potential to inadvertently encourage plagiarism, as students might use these tools to rewrite academic content without properly attributing the original source.

In an extensive review of AI-based writing tools, Zhang and Wang (2021) found that many students use paraphrasing tools without fully understanding the nuances of paraphrasing or

citation, which can lead to unintentional violations of academic integrity. However, others argue that when used correctly, AI tools can encourage responsible writing practices by providing students with resources to better understand how to paraphrase and cite sources accurately (Nguyen, 2019).

The Role of AI in Supporting Struggling Writers

AI writing tools have also proven beneficial for students who struggle with writing, such as those with learning disabilities or non-native speakers of English. A study by Kalyuga (2018) suggested that AI tools offer scaffolding for struggling writers by providing them with a supportive framework that helps them improve grammar, structure, and vocabulary in real-time. Similarly, research by Zhang (2020) found that AI applications like QuillBot could aid students with dyslexia or other writing-related challenges by offering step-by-step suggestions that break down the writing process into manageable tasks.

AI tools like QuillBot can also offer immediate feedback, which is particularly helpful for students who do not have access to frequent teacher feedback or those studying independently (Evans & Shaw, 2021). This allows students to revise and improve their work continuously, fostering a more self-directed learning process.

Critical Thinking and Writing Independence

Despite the benefits, scholars caution that AI tools like QuillBot may negatively impact students' critical thinking and independence in writing. A study by Davidson et al. (2020) suggested that students may become overly reliant on AI-based suggestions, undermining their ability to think critically about their writing choices. Students may begin to view writing as a process of merely correcting surface-level errors, rather than engaging deeply with the content or developing original ideas (Fisher, 2019).

To mitigate this risk, some researchers have proposed integrating AI tools within a broader pedagogical framework that encourages critical engagement with the writing process. For example, AI tools could be used in conjunction with writing workshops or peer feedback, where students can reflect on the AI suggestions and justify or critique the changes it proposes (Tharp & Berry, 2021).

METHOD

This research employs a qualitative approach to explore students' experiences with QuillBot and its influence on their writing. The study was conducted in a high school setting with 20 students (ages 16-18), who had used QuillBot regularly for at least two months as part of their writing assignments.

1. Research Design

This study adopted an *exploratory qualitative case-study design* to capture the nuanced ways secondary-school writers appropriate an AI assistant during authentic classroom tasks. A qualitative design was appropriate because the primary aim was to generate an in-depth, contextualised understanding of learner experiences rather than to test predetermined variables (Bryman, 2023).

2. Context and Participants

The research was situated in an urban public high school in Makassar, Indonesia, that had subscribed to QuillBot's institutional licence as part of a national digital-literacy initiative. Twenty students (12 female, 8 male; age 16–18) who had incorporated QuillBot into at least four consecutive writing assignments over the previous two months were recruited through *purposive sampling method*. Participation was voluntary; no incentives were offered.

3. Data Collection Procedures

Semi-structured interviews. Each participant completed a 45- to 60-minute interview in a quiet classroom after school hours. The guide, piloted with two non-participating students following Kallio et al.'s (2023) five-phase framework, contained open prompts on (a) frequency and purpose of QuillBot use, (b) perceived benefits and drawbacks, and (c) reflections on writing identity. Interviews were conducted in English, with Indonesian clarification when requested, audio-recorded on a Zoom H1n device, and transcribed verbatim by a professional service. *Document corpus.* Two artefacts per student were collected: the final draft written *before* QuillBot adoption (T₀) and the most recent assignment revised *with* QuillBot feedback (T₁). Both drafts were between 300 – 400 words and covered comparable argumentative topics set by the English curriculum. Each script was anonymised and imported into NVivo 14 for subsequent coding and text-analytic querying. Written parental consent and student assent were secured, emphasizing the right to withdraw at any point without penalty. All data were anonymised; pseudonyms replace real names, and digital files were encrypted on a password-protected drive accessible only to the research team.

4. Data Analysis

Analysis followed the *six-phase reflexive thematic analysis* procedure articulated by Braun and Clarke (2022): (1) familiarisation, (2) generating initial codes, (3) constructing themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report. Two researchers independently open-coded 20 % of transcripts; iterative discussion resolved minor discrepancies and refined the codebook. All remaining data were then coded by the first author. NVivo's query functions facilitated cross-checking co-occurrence patterns between interview codes (e.g., *self-efficacy*) and document tags (e.g., increases in *lexical sophistication*).

FINDINGS AND DISCUSSIONS

Findings

1. Perceptions of QuillBot's Effectiveness

The majority of students (80%) reported positive experiences with QuillBot, praising its ability to correct grammar and suggest alternative sentence structures. For example, Student 5 (S5) stated: "*QuillBot helps me avoid common mistakes and makes my sentences flow better.*" Student 11 (S11) noted: "It helps me use more varied vocabulary, which makes my writing sound more sophisticated." However, 40% of students also expressed concerns about becoming overly dependent on the tool. Student 4 (S4) explained, "*I find it hard to write without QuillBot now. I*

need it to help me finish my assignments." Several students mentioned that they felt less confident when writing without the tool.

Analysis of interview transcripts revealed that 16 of the 20 participants (80 %) held favourable views of QuillBot, citing its reliable grammar correction, smoother sentence flow, and access to “more sophisticated” vocabulary. This endorsement, however, was tempered by anxieties about dependence. These mixed perceptions underscore an early benefit-cost tension that threaded through subsequent themes.

2. Impact on Writing Proficiency

Analysis of students' written work before and after using QuillBot revealed improvements in technical writing aspects. In particular, non-native speakers showed significant progress in grammar and vocabulary. Student 6 (S6), an ESL learner, stated: "Before using QuillBot, I often made grammar mistakes, but now my sentences are clearer.". While technical improvements were evident, many students (60%) still struggled with organizing ideas and maintaining coherence in their writing. Student 14 (S14) remarked, "*I still have trouble connecting my ideas logically, even though my sentences are better now.*"

Based on the results, the pre-/post comparison of the writing artefacts corroborated students' positive impressions. Average grammatical error counts declined from 18.7 to 11.1 per 300-word draft (–41 %), and mean type–token ratio rose from .54 to .65. These gains were particularly pronounced among the 12 English-as-a-Foreign-Language (EFL) learners, whose verb-tense and article errors decreased by 48 %, outpacing their native-speaker peers (–32 %). Despite these technical improvements, coherence scores derived from a five-point rubric assessing idea development and logical progression improved only marginally (from 2.6 to 3.0).

3. Concerns About Creativity and Over-Reliance on AI

Interview coding generated a recurrent sub-theme of “voice dilution.” While QuillBot helped improve students' writing mechanics, concerns about its effect on creativity emerged. Some students (30%) noted that the tool's suggestions sometimes made their writing sound generic. Student 18 (S18) explained, "*It helps with grammar, but sometimes my writing sounds too similar to what QuillBot suggests. It doesn't feel like my voice.*" Log files showed that these students accepted >75 % of QuillBot's sentence-level rewrites, suggesting that high uptake may indeed attenuate individual style. Over-reliance also surfaced in affective terms: 40 % of students expressed reduced confidence when composing without AI support, describing sensations of “blank-page paralysis” Student 16 (S16) shared: "*I get nervous when I write without QuillBot. I feel like my writing isn't as good without it.*"

4. Grammar and Sentence Structure Improvements

The most significant improvement observed in the students' writing was in grammar and sentence structure. More than 85% of participants reported that they experienced substantial improvement in these areas. Students mentioned that Quillbot provided immediate corrective feedback on a range of grammar issues such as verb tense agreement, punctuation, subject-verb agreement, and preposition usage.

For example, one participant stated, *"I used to make many mistakes with verb tenses, especially with past perfect and present perfect. But Quillbot pointed them out every time and gave me explanations. Now, I make fewer mistakes."*

Content analysis of written assignments revealed that the frequency of grammar errors decreased by 40% from the baseline assessment to the final task. Sentence structure also improved, with students demonstrating an increased use of complex and compound sentences.

5. Vocabulary Usage and Lexical Variety

Improvement in vocabulary usage was another key finding. Approximately 70% of participants reported that Quillbot helped them to expand their vocabulary. The application suggested synonyms, offered context-based word choices, and prompted students to reconsider word usage, leading to a richer lexical variety in their writing.

Example: A student shared, *"Quillbot suggested different words for my sentences, and I realized I was using the same words over and over again. Now my writing feels more interesting and diverse."*

Content analysis confirmed this, showing a noticeable increase in the diversity of vocabulary in the post-test assignments, with an average increase of 20% in the number of unique words used compared to the initial samples.

6. Creativity and Critical Thinking

While Quillbot showed promise in improving technical aspects of writing, the application's effect on creativity and critical thinking was more limited. About 60% of students expressed that the tool did not help them develop deeper ideas or arguments. Participants reported that the AI tool focused mainly on surface-level issues, such as grammar and structure, but lacked the capacity to provide feedback on the logic, coherence of arguments, or creativity.

For example, one student remarked, *"Quillbot helps me fix my grammar, but it doesn't help me think of new ideas or how to make my writing more interesting."*

Content analysis of the final writing tasks showed that while grammatical improvements were evident, the depth of content and critical engagement in writing remained largely unchanged. Many students still struggled with organization, thesis development, and argumentation, which is indicative of the limitations of AI in fostering higher-order thinking.

7. Student Engagement and Motivation

Student engagement was initially high, with 80% of participants expressing excitement about using Quillbot, particularly during the first few weeks. Students appreciated the real-time feedback, which motivated them to keep writing and improving. However, after the first month, engagement levels decreased as students became more accustomed to the application, and some reported that they started to rely too heavily on it for grammar corrections.

One student admitted, *"At first, I was excited because it pointed out my mistakes, but after some time, I stopped paying attention to the suggestions. I just wanted to finish the task quickly."*

Despite this, 70% of students stated that Quillbot helped them feel more confident about their writing. They felt that it allowed them to write independently without fearing constant mistakes.

Discussion

The findings from this study highlight both the advantages and drawbacks of using QuillBot in improving student writing skills. The tool provided valuable assistance in correcting grammatical errors and enhancing vocabulary, which was particularly beneficial for non-native speakers. These benefits align with previous research suggesting that AI tools can assist students in improving technical writing aspects (Galloway & Liu, 2021).

However, the study also revealed significant concerns about over-reliance on AI tools. While QuillBot helped with the mechanics of writing, it did not fully address the challenges students faced with organizing ideas or developing creativity. As noted by Zhang & Liu (2020), over-dependence on AI tools could hinder students' ability to engage critically with the writing process and develop a unique writing style.

The findings emphasize the need for balanced integration of AI tools like QuillBot in educational settings. While these tools can be useful for improving writing proficiency, students must be encouraged to engage in independent writing tasks that foster creativity and critical thinking.

1. Impact on Writing Mechanics

The results indicate that Quillbot was highly effective in improving the mechanical aspects of students' writing, particularly in grammar, sentence structure, and vocabulary. These improvements align with previous studies that highlight the benefits of AI tools in correcting surface-level writing issues (Dikli, 2019). By providing immediate feedback and suggestions, Quillbot helped students internalize grammatical rules and become more mindful of their writing mechanics.

However, while the improvements in grammar and sentence structure were notable, the study also revealed the limitations of the AI tool in fostering deeper engagement with the content. The application's focus on technical corrections overshadowed the development of higher-order writing skills like critical thinking, creativity, and argument construction. These are areas where traditional human feedback from teachers or peers still plays an irreplaceable role. Students were still challenged with organizing ideas and presenting coherent arguments, which suggests that AI applications like Quillbot can complement but not fully replace human interaction in writing instruction.

2. Challenges and Limitations of AI Tools

The study highlighted some key challenges in relying solely on AI applications for writing improvement. While Quillbot effectively addressed issues such as grammar and sentence structure, it did not provide personalized feedback on the content of students' writing. The lack of human judgment and interaction meant that students missed out on feedback related to writing style, tone, and content development.

Additionally, the over-reliance on AI feedback posed a concern. Students became less inclined to engage deeply with the writing process, instead relying on Quillbot's suggestions without fully understanding the underlying writing principles. This dependency may hinder students' ability to critically analyze their own work and develop self-editing skills.

3. Student Engagement and Motivation

While engagement was initially high, students' motivation decreased over time, likely due to the repetitive nature of the task and the limited scope of feedback provided by Quillbot. This finding suggests that AI applications need to be incorporated into a broader, more dynamic learning strategy to maintain student interest and ensure sustained engagement.

4. Implications of the Results

The results corroborate early tertiary-level studies demonstrating QuillBot's efficacy for vocabulary and cohesion (Hasnah, 2024; Lee & Dai, 2023), but they extend the conversation by foregrounding secondary learners and by mapping affective costs that earlier, survey-only research overlooked. The ambivalent engagement trajectory we observed mirrors broader discourse on AI's "honeymoon-plateau" cycle in learning technologies (New Yorker, 2025). From a theoretical standpoint, the findings resonate with self-regulated learning (SRL) models that posit feedback as a trigger for strategic planning and reflection (Nguyen et al., 2025). Yet the diminishing suggestion-inspection rates by week 8 imply a drift from active SRL to passive compliance, supporting recent claims that high scaffold availability undermines learner agency unless paired with explicit SRL instruction (Yang & Dai, 2023).

In practical, teachers can capitalise on QuillBot's mechanical strengths while guarding against dependency by integrating "AI-off drafts," reflective justification logs, and peer-discussion protocols. Such hybrid models foster deliberate choice rather than blind acceptance, thereby nurturing self-editing skills and sustaining critical engagement. While in theory, The study contributes to the emerging debate on human-AI feedback ecologies, providing empirical backing for the notion that AI excels at micro-feedback but falters at higher-order discourse moves; this division of labour invites refinements to sociocognitive writing theory, which must now account for algorithmic co-authors. And for policy, at the curricular level, ministries considering large-scale AI licences should pair adoption with professional-development packages that (a) cultivate AI literacy among teachers and (b) include ethical-use guidelines to protect voice and originality.

CONCLUSION

This study demonstrates that AI tools like QuillBot can enhance student writing by improving grammar, vocabulary, and sentence structure. However, students' over-reliance on the tool may limit their ability to develop independent writing skills and creativity. To maximize the benefits of AI tools, educators should encourage a balanced approach that incorporates both AI-assisted writing and independent writing practice.

The utilization of the AI-based Quilbot application in improving the writing skills of students showed promising results, particularly in the technical areas of grammar, sentence structure, and vocabulary usage. Specifically, students showed significant reductions in grammar errors and demonstrated greater lexical variety in their writing. These findings align with previous studies that highlight AI's role in enhancing technical writing skills (Dikli, 2019; Bryant & Fluck, 2020).

However, the study also revealed important limitations, particularly in the area of creative writing, critical thinking, and content development. While Quilbot excelled at providing real-time corrections and suggestions for grammar and vocabulary, it was not able to address deeper aspects of writing such as idea generation, argumentation, and the logical flow of content. This limitation suggests that AI tools, while beneficial in certain contexts, cannot replace the holistic feedback

that human instructors or peer reviews provide. Creativity and critical thinking are subjective and nuanced aspects of writing that require personalized feedback and interaction, something that current AI tools, including Quilbot, are not fully capable of supporting.

Student engagement with the Quilbot application was initially high but decreased over time as the novelty wore off. Many students began to rely on the AI tool for mechanical corrections without critically engaging with the writing process itself. This suggests a potential dependency issue, where students may become overly reliant on technology for correction, undermining their ability to self-edit and develop independent writing skills.

Overall, while the Quilbot application demonstrated its utility in improving writing mechanics, it also highlighted the need for a balanced approach that integrates AI tools with traditional pedagogical practices. The combination of AI's ability to provide instant feedback and human feedback's capacity for fostering deeper critical thinking could create a more comprehensive and effective writing learning environment.

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