

Grammar Correction in AI-Assisted Business English Writing Instruction

Fahrur Rozi,^{1*} Gina Larasaty,² Sri Wahyuni,³ Christianti Tri Hapsari,⁴ Lulu April Farida,⁵ Andy Sutrisno,⁶ Yolinda Pramudanti,⁷ Amelia Widiastutik,⁸ Amrina Rosyada⁹

¹³⁴⁵⁶⁷⁸⁹Universitas Negeri Semarang, Semarang – Indonesia, ²Universitas Wiralodra, Indramayu – Indonesia

Article Information

Received: September 23, 2025

Revised: November 25, 2025

Accepted: November 25, 2025

Published online: April 08, 2026

Abstract

This study examines the efficacy of an AI-driven feedback tool in enhancing business English writing skills among higher education students. The research investigated 50 students' perceptions of the tool's advantages and its effectiveness in addressing specific issues in grammar, vocabulary, document organization, and genre conventions in business writing. The investigation employed a mixed-methods explanatory sequential design, integrating a five-point Likert questionnaire to assess learner attitudes and semi-structured interviews to investigate experiences in depth. The analysis employed a thematic approach to discern trends in perceived enhancement, efficiency, confidence, organizational support, and contextual direction. Research indicated that AI-generated feedback improves both mechanical and advanced writing skills, fosters learner independence, and reduces writing anxiety. These findings highlight the importance of integrating this technology into English for Specific Purposes programs to promote professional-quality writing in commercial contexts. Future researchers should explore the long-term effects of AI-driven feedback tools across diverse ESP contexts and compare the efficacy of multiple AI writing platforms in developing professional writing competence.

Keywords: AI-driven feedback; English for business; English for specific purposes; writing efficiency; Quillbot

Introduction*

In the modern educational environment, proficiency in business English writing has become an essential ability for higher education students, especially as globalization transforms

professional communication requirements. Students frequently encounter substantial obstacles in cultivating proficient business writing skills, including issues with grammar, syntax, vocabulary, and the ability to formulate coherent professional writing featuring suitable

*Corresponding Author: Fahrur Rozi
(frozi@mail.unnes.ac.id) Jl Raya Banaran, Sekaran,
Kec. Gn. Pati, Semarang, Central Java, 50229

©2025 by the Authors, published by Vision: Journal for
Language and Foreign Language Learning
<https://journal.walisongo.ac.id/index.php/vision>

thesis statements and logical structure (Junaedi, 2025; Putri et al., 2024; Suharto et al., 2025). The issues are exacerbated by inadequate instructional hours for writing development and the intricate nature of business-specific vocabulary and concepts that students must comprehend.

Furthermore, the emergence of artificial intelligence (AI) has presented significant opportunities for tackling these enduring issues in academic writing teaching. AI-driven feedback systems have garnered significant attention in higher education as new solutions that elevate writing quality, promote efficiency, and mitigate language-learning obstacles (Kawashima, 2023). QuillBot has emerged as a significant AI-driven writing assistance tool, offering real-time feedback, paraphrasing, grammatical correction, and vocabulary augmentation features tailored for academic writing development.

In addition, more recent research has shown that QuillBot effectively enhances multiple facets of writing, including grammatical precision, sentence structure, and plagiarism mitigation through advanced paraphrasing. Moreover, research has demonstrated that the utilization of QuillBot markedly improves students' writing confidence, alleviates writing anxiety, and facilitates collaborative writing endeavors (Bakri et al., 2024; El-Garawany, 2024; Junaedi, 2025). The use of AI-driven technologies signifies a fundamental transformation towards individualized, technology-enhanced teaching methods that offer rapid, consistent feedback to facilitate student learning.

Although AI-driven feedback systems in writing instruction show considerable promise,

significant research gaps remain that limit the exploration of their efficacy in specialized educational settings. Currently, there is a limitation of research explicitly investigating AI feedback systems for business English writing in higher education, as the majority of previous studies concentrate on general academic writing rather than the distinct needs of professional communication (Bakri et al., 2024; Dangin et al., 2023; Fathimatuzahro & Rizkiyah, 2025; Pratama et al., 2025; Youn et al., 2025). Secondly, there is insufficient empirical evidence on the specific impact of QuillBot on business English writing proficiency, especially regarding students' capacity to generate professional documents that adhere to industry standards. Third, there is a conspicuous absence of comprehensive studies investigating students' views of AI-driven feedback in business English environments, leaving a gap in understanding how learners engage with and respond to technology-mediated writing instruction. There is an urgent need for empirical evidence demonstrating QuillBot's efficacy in cultivating the specific professional writing skills essential to business contexts, such as formal correspondence, reports, proposals, and other genre-specific documents integral to business communication proficiency.

This study identifies a notable deficiency in the literature on AI-based grammar correction tools, specifically regarding the application of QuillBot in the instruction of business English writing in higher education contexts. This study's significance lies in its capacity to inform evidence-based teaching practices that leverage AI to improve specialized professional writing instruction, thereby aiding the digital transformation of higher education and

addressing the ongoing challenges students encounter in acquiring business communication skills.

This research is distinguished by its unique emphasis on the convergence of AI-driven feedback technology with specialized English for Specific Purposes (ESP) training. This study offers the inaugural systematic examination of QuillBot's efficacy in enhancing corporate English writing, notwithstanding prior research on AI tools in general academic writing contexts. This new method meets the current demand for research that connects technology-enhanced learning with specialized professional communication training, offering novel perspectives on the optimal integration of AI-driven feedback into English for Specific Purposes curricula.

This study investigates the efficacy of QuillBot, an AI-based feedback tool, for enhancing business English writing skills among higher education students. The objectives are to assess students' perspectives on the beneficial effects and user convenience of QuillBot as a feedback tool in business English composition, to analyze how QuillBot addresses specific challenges in business writing instruction, and to determine optimal strategies for integrating QuillBot into business English courses. These objectives guide the investigation to provide comprehensive insights into both performance outcomes and learner experiences with AI-mediated feedback in professional writing education.

Method

Research Design

This study adopted a mixed-methods explanatory sequential design (Creswell & Creswell, 2018), which quantifies a phenomenon and explains the findings by qualitative inquiry. The design is particularly effective for complex research topics that require both statistical evidence and contextual understanding, making it a viable choice for investigations into AI-assisted business writing education. The quantitative method for distributing questionnaires facilitates the collection of information on students' perceptions of QuillBot. The questionnaire was designed using Likert-scale questions in Google Forms as the primary data collection method. The questions were divided into two sections: 1) Demographic information of the respondents: three inquiries, and 2) twenty closed-ended questions. The closed-ended questions focused on students' perspectives on business English writing with QuillBot, with emphasis on their strengths and weaknesses in its use. Meanwhile, the closed-ended questionnaire requires students to indicate their agreement with a series of statements on a five-point Likert scale ranging from "strongly disagree", "disagree", "neutral", "agree", and "strongly agree".

This research also employed a qualitative approach to obtain in-depth insights into learners' perspectives and the issues encountered in Business English Writing classes. A semi-structured interview approach was employed to obtain further explanations from the respondents concerning their perspectives and responses to the questions.

Participants

This study encompassed 50 students from two distinct universities in Indonesia enrolled in Business English courses during the second

semester of the 2024/2025 academic year. The participants involved nineteen male students and thirty-one female students. This research utilized probability sampling, specifically simple random sampling, to ensure each student had an equal opportunity to participate. The participants were selected to gather diverse perspectives on using QuillBot, an AI-based feedback tool, in English for Business courses. Ten participants were interviewed to provide a more profound understanding of their responses to the Google Form questionnaire.

Data Collection Procedures

To obtain the data, the researchers sent a link to a Google Form containing the closed-ended questionnaire in English for the Business class on May 5, 2025. Participants were instructed to complete the Google Form questionnaire. All students have completed the Google Form questionnaire on May 19, 2025. The interview was conducted face-to-face from May 22, 2025, to May 29, 2025. The researchers organized a meeting with the random sampling participants to ensure the sample accurately represented the broader population, thereby enhancing the generalizability of the research findings, reducing sampling bias, and balancing demographic characteristics. This study also obtained consent to record the interview from the beginning until the end. Subsequently, the data were transcribed, processed, and classified based on information gathered from questionnaires and interviews.

Data Analysis Procedures

After the researchers collected and completed the data, the study analyzed questionnaire results using statistical analysis in Google Forms. The data were organized in

descending order of the number of statements based on participants' responses using QuillBot. Furthermore, the researchers conducted a thematic analysis to identify the prevailing theme in participants' responses. According to Braun and Clarke (2012), thematic analysis systematically identifies, organizes, and elucidates significant patterns (themes) within a dataset (Braun & Clarke, 2016). The method highlighted and clarified the expectations about the discourse or composition of ideas. After analyzing the data and reviewing the outcomes of the theme analysis, the researchers concluded the study.

Findings and Discussion

Finding

This section offers the study's findings from 50 English for Business classes, containing thirty students from the Management Department, Faculty of Economics and Business, Universitas Negeri Semarang, in Semarang, Center of Java and twenty students from the English Language Education Department, Faculty of Teachers Training and Education Science, Universitas Wiralodra in Indramayu, West Java, who have completed the English for Business course. This study aims to examine students' perspectives on the beneficial effects and user convenience of QuillBot as a feedback instrument in business English composition. Furthermore, this study seeks to investigate how QuillBot addresses specific challenges in business writing instruction. The findings are described below.

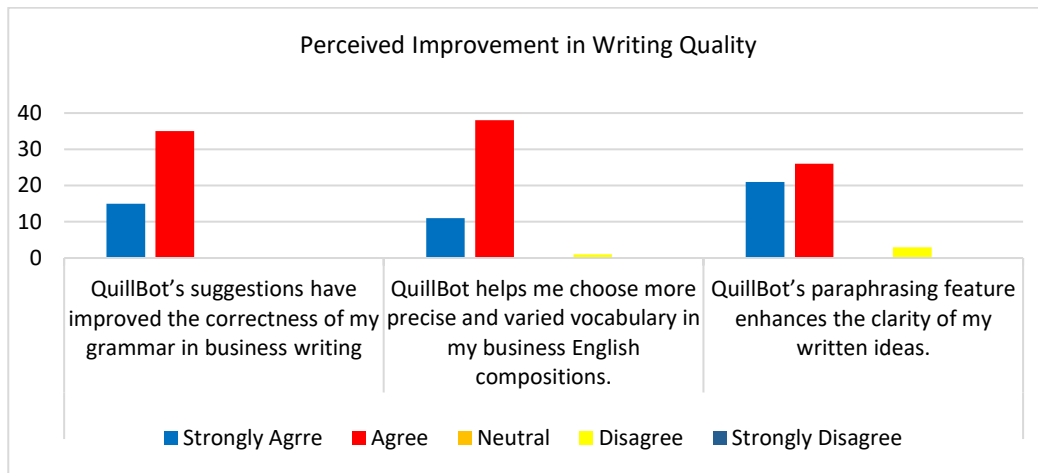
Students' Perspectives on the Benefits and Ease of Use of QuillBot

Based on Figure 1, 15 students (30%) strongly agree and 35 students (70%) agree that QuillBot

suggestions can improve the correctness of their grammar in business writing. Meanwhile, in questionnaire 2, which QuillBot helped students choose more precise and varied vocabulary in their business English compositions, the data showed 11 students (22%) strongly agreed, 38

students (76%) agreed, and just 1 student chose to disagree. Questionnaire 3 showed that 21 students (42%) strongly agree, 26 (52%) agree, and only 3 (6%) disagree that QuillBot's paraphrasing feature enhances the clarity of their written ideas.

Figure 1
Perceived Improvement in Writing Quality



The statistics reveal predominantly favorable student perceptions of QuillBot's efficacy in improving business writing, with few objections. Regarding grammar correction, 100 percent of respondents either concurred or strongly concurred that QuillBot's recommendations enhanced the accuracy of their grammar—30 percent indicating "strongly agree" and 70 percent "agree." This collective endorsement indicated that students consider QuillBot very dependable for detecting and correcting grammatical problems in business English contexts.

Concerning language clarity and diversity, 98 percent of students acknowledged a benefit—22 percent "strongly agree" and 76 percent "agree"—while merely one student expressed

dissent. This widespread agreement suggests that QuillBot significantly expands learners' vocabulary, enabling them to produce more sophisticated and professional compositions.

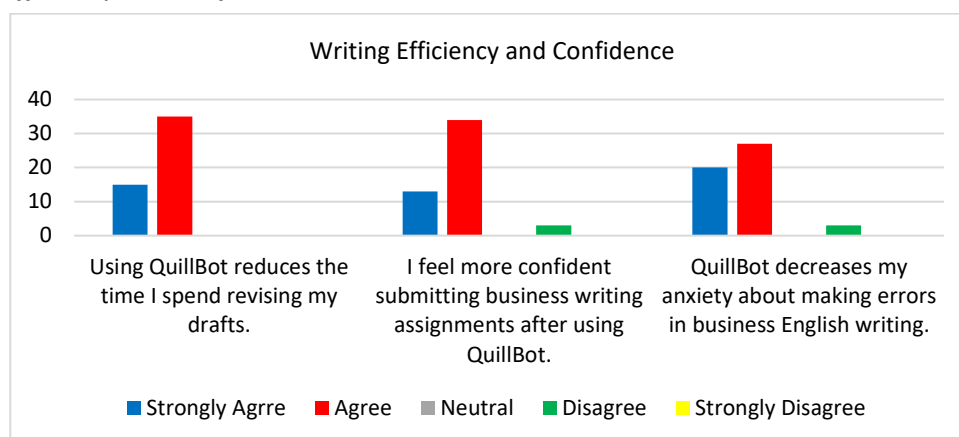
Ultimately, regarding the clarity of concepts facilitated by paraphrase aid, 94 percent of participants provided affirmative responses (42 percent "strongly agree," 52 percent "agree"), while only 6 percent indicated dissent. This strong majority, while slightly smaller than the other two items, nonetheless indicated significant confidence in QuillBot's paraphrase feature to improve the coherence and readability of business writing.

Collectively, these data indicate that students acknowledge QuillBot as an essential instrument for mechanical corrections

(grammar and vocabulary) and value its contribution to enhancing the clarity of their written communication. The modest levels of

dissent further highlight the tool's overall efficacy and user endorsement in a higher-education business English context.

Figure 2
Writing Efficiency and Confidence



According to Figure 2, 15 students (30%) strongly agree, while 35 students (70%) believe that using QuillBot reduces the time they spend reviewing their drafts. Conversely, 13 students (26%) strongly agree, 34 students (68%) agree, and 3 students (6%) disagree on their increased confidence in submitting business writing projects after utilizing QuillBot. In response to the question regarding whether QuillBot alleviates their anxiety about making errors in business English writing, the data presented in Figure 2 indicate that 20 students (40%) strongly agree, 27 students (54%) agree, and 3 students (6%) disagree; no respondents selected neutral or strongly disagree in Figure 2.

The results illustrated in Figure 2 indicate that QuillBot markedly improves students' writing efficiency, confidence, and emotional comfort throughout the drafting process. When asked whether QuillBot reduced the time allocated to evaluating drafts, all

respondents concurred or strongly concurred—30% extremely concurred and 70% concurred—demonstrating a clear sense of time efficiency. It corroborates previous studies indicating that automated feedback technologies expedite revision cycles by offering prompt, actionable recommendations, thereby reducing overall writing time.

94% of students reported increased confidence in submitting business writing projects after using QuillBot, while only 6% expressed dissent. These results corroborate the findings of Dja'far and Hamidah (2024), who noted that AI-mediated feedback enhances learners' self-efficacy and propensity to engage in writing risks (Dja'far & Hamidah, 2024; Tiwari, 2023). Furthermore, none of the participants chose a neutral response, highlighting the tool's consistently favorable effect on student confidence levels.

Similarly, QuillBot appears to mitigate writing anxiety: 94% of students concurred or strongly concurred that the tool reduced their apprehension about errors, with only 6% dissenting and no participants indicating neutrality or severe dissent. This result supports the findings of Rasoul et al. (2023), who observed a significant reduction in writing fear among students using automated writing assessment systems, crediting this phenomenon to the reliable, nonjudgmental quality of AI-generated feedback (Rasoul et al., 2023).

The other piece of evidence supporting the argument came from the interview results. The students agree that they have been motivated and confident when using QuillBot in writing the script for a video promoting MSMEs in Indonesia.

Excerpt 1:

"I have been motivated and confident with the apps. Through consistent practice in writing English during the scriptwriting process, I have become more accustomed to the language. Although there is still room for improvement, my confidence has noticeably increased." – Student A, Interview, May 22, 2025.

Excerpt 2:

"Agreed, because creating promotional videos for MSMEs with AI, specifically QuillBot, trains clear, persuasive, and structured business writing skills, thus aiding effective communication in the business world." – Student E, Interview, May 23, 2025.

Qualitative interview results further corroborate these findings. Student A indicated enhanced enthusiasm and confidence

from the recurrent utilization of QuillBot when scripting an MSME promotional video, observing that "consistent practice ... has significantly improved" their proficiency in English writing. This testimonial corroborates El-Garawany's (2024) assertion that consistent engagement with AI tools promotes gradual skill enhancement and favorable emotional responses (El-Garawany, 2024). Likewise, Student E highlighted that QuillBot's assistance in composing persuasive, well-organized business documents improved their ability to communicate effectively in professional settings. This observation aligns with Dja'far and Hamidah's (2024) research on the role of AI tools in enhancing genre-specific writing skills (Dja'far & Hamidah, 2024). Collectively, these quantitative and qualitative findings indicate that QuillBot not only expedites the rewriting process but also fosters a supportive atmosphere that enhances student confidence and alleviates fear in business English writing.

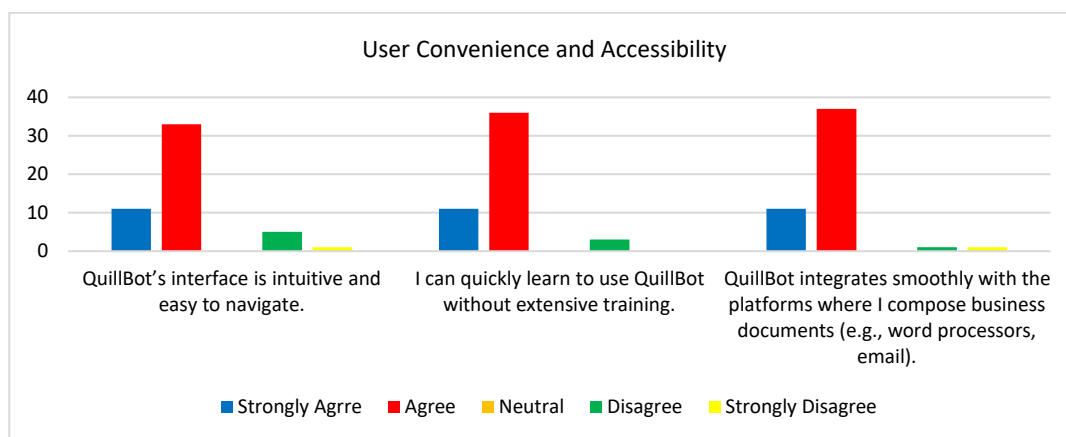
Figure 3 indicated that 11 students (22%) strongly agree, 33 students (66%) agree, 5 students (10%) disagree, and 1 student strongly disagrees that QuillBot's UI is intuitive and easy to navigate. Additionally, 11 students (22%) strongly agree, 36 students (72%) agree, 3 students (6%) disagree, and no students responded neutrally or strongly disagreed to the assertion that QuillBot can be swiftly acquired by students without extensive training. The final inquiry regarding user convenience and accessibility is whether QuillBot integrates seamlessly with the platforms students use to compose business documents (e.g., scripts, word processors, and email). Eleven students (22%) strongly agree, 37 students (74%) agree, 1

student (2%) disagrees, and 1 student (2%) strongly disagrees.

Figure 3 illustrates that a significant majority of students regard QuillBot as an intuitive and accessible instrument. Specifically, 88 percent of respondents agreed or strongly agreed that QuillBot's UI is intuitive and user-friendly, while only 12 percent disagreed. Likewise, 94 percent indicated they could quickly learn to use QuillBot

without extensive training, and 96 percent agreed that the tool integrates seamlessly with their current writing platforms, with only 4 percent dissenting. The findings corroborate previous research demonstrating that good usability and minimal learning curves are essential predictors of continued use of AI-powered writing tools in educational settings (Dja'far & Hamidah, 2024).

Figure 3
User Convenience and Accessibility



This interview evidence supports the quantitative data in Figure 3. Students agreed that QuillBot is easy to use and accessible.

Excerpt 3:

"I consider QuillBot exceptionally convenient. Its streamlined, user-friendly interface lets me publish my content and receive comments within seconds. I do not require navigation through intricate menus—everything I need is readily accessible on the main dashboard, thereby conserving significant time." – Student D, Interview, May 23, 2025.

Excerpt 4:

"The QuillBot browser extension interacts effortlessly with the services I utilize regularly, such as Google Docs and email. I can edit script or copywriting for making promotions without toggling between applications, hence streamlining the writing process significantly." – Student G, Interview, May 26, 2025.

Excerpt 5:

"Acquiring proficiency in QuillBot was uncomplicated—I saw a concise instructional and promptly felt at ease utilizing its functionalities. Despite delving into the deeper settings, the tool's descriptions and tooltips

provided clear guidance, preventing any sense of overwhelm." – Student I, Interview, May 29, 2025.

Qualitative interview findings further emphasize this topic of convenience and accessibility. Student D emphasized the efficiency gains enabled by QuillBot's streamlined dashboard, noting that "all necessary resources are easily accessible on the main dashboard, thus saving considerable time." It corroborates El-Garawany's (2024) conclusion that a tidy, streamlined user interface diminishes cognitive burden and promotes frequent tool utilization (El-Garawany, 2024). Student G highlighted the effortless integration of QuillBot's browser extension with Google Docs and email, supporting Rasoul et al.'s (2023) assertion that compatibility with widely used platforms improves workflow continuity and user happiness (Rasoul et al., 2023). Student I's account of swift onboarding—"despite exploring advanced settings, the tool's descriptions and tooltips offered clear guidance, alleviating any feelings of overwhelm"—underscores the significance of in-application guidance features recognized by Dja'far and Hamidah (2024) as crucial for reducing training needs and fostering learner autonomy.

The combined quantitative and qualitative findings demonstrate that QuillBot's superior usability, low training requirements, and smooth integration with current writing environments significantly influence student acceptance and effective use of AI-generated feedback in business English composition.

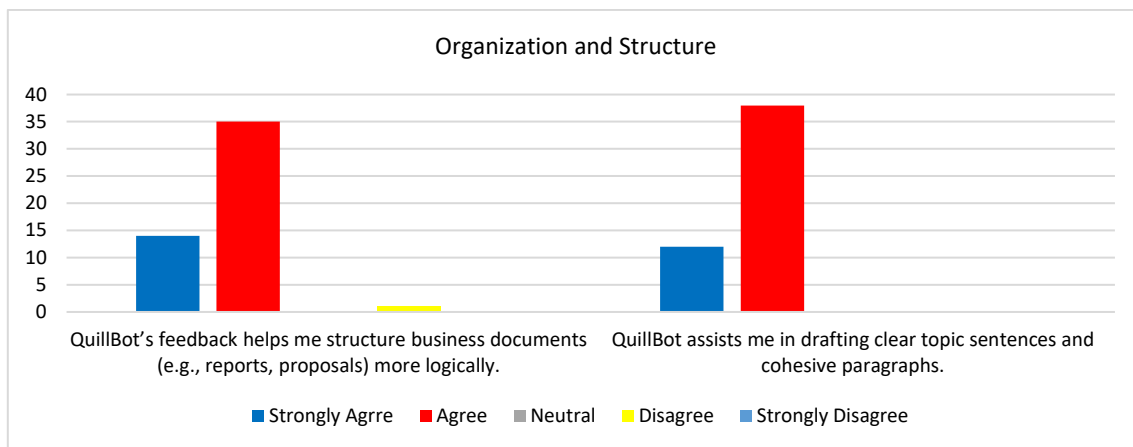
In conclusion, based on all the findings, the first research question can be answered: students consistently assert that QuillBot provides significant advantages and unmatched

convenience as a feedback tool for business English writing. Almost all participants (100%) agreed that QuillBot's recommendations enhance grammatical precision, improve word selection, and clarify textual concepts through paraphrasing. They reported substantial improvements in writing efficiency, with 100% recognizing decreased revision time, as well as notable increases in confidence (94%) and decreases in writing anxiety (94%). Qualitative insights highlight QuillBot's user-friendly design and seamless integration: students commended its straightforward dashboard, effortless compatibility with platforms like Google Docs and email, and a short learning curve facilitated by clear in-tool assistance. The findings validate previous studies indicating that AI-driven feedback tools improve mechanical writing skills while also promoting good emotional outcomes and continued usage due to their excellent usability (Dja'far & Hamidah, 2024; El-Garawany, 2024).

QuillBot's Role in Addressing Specific Business Writing Challenges

Based on the data collected in the Google Forms questionnaire, Figure 4 indicated that 14 students (28%) strongly agree, 35 students (70%) agree, 1 student (2%) disagrees, and no one is neutral or strongly disagrees that QuillBot's feedback helps them structure business documents (e.g., reports, proposals) more logically. Additionally, 12 students (24%) strongly agree, 38 students (76%) agree, and no students responded neutrally, disagreed, or strongly disagreed with the assertion that QuillBot can assist them in drafting clear topic sentences and cohesive paragraphs.

Figure 4
Organization and Structure



These results show that students see QuillBot as more than just a tool for mechanically fixing mistakes. They also see it as a useful writing assistant that helps them improve their higher-order planning skills. The fact that both measures consistently showed high levels of agreement suggests that the feedback successfully addresses structural problems in business writing, helping students make documents that are more coherent, logically developed, and professionally formatted.

The additional evidence corroborating the thesis was derived from the interview findings.

Excerpt 3:

"QuillBot significantly enhances my ability to arrange script in video. The input on paragraph structure and transitions facilitates the presentation of ideas in a coherent and professional manner, particularly in making a script." – Student C, Interview, May 23, 2025.

Excerpt 4:

"Prior to utilizing QuillBot, I encountered difficulties with clarity and coherence in my business writing. The tool's recommendations for more coherent topic sentences and seamless transitions between paragraphs have enhanced my email and formal letter composition." – Student H, Interview, May 29, 2025.

Excerpt 5:

"QuillBot's help with organizing my content was very helpful when I was writing script and copywriting ideas. It helped me rearrange parts of the sentences to make it more logical and convincing by showing me where my points were weak or did not make sense." – Student J, Interview, May 29, 2025.

The remarkably positive responses in Figure 4—where 98% of students concurred or strongly concurred that QuillBot's feedback enhances the logical structure of business documents and 100% confirmed that it aids in crafting clear topic sentences and cohesive paragraphs—

demonstrate that learners perceive the tool as a substantial aid for advanced writing processes rather than merely for superficial corrections, correlating with the previous study on AI-driven feedback (Dangin et al., 2023; Dja'far & Hamidah, 2024; El-Garawany, 2024; Pitukwong & Saraiwang, 2024; Putri et al., 2024; Rasoul et al., 2023; Sutrisno et al., 2025). The negligible dissent (2%) regarding document structuring indicated that almost all students perceive QuillBot's organizational recommendations as trustworthy and relevant to practical formats such as reports and proposals.

These results correspond with previous studies on AI-based feedback mechanisms in academic writing. According to El-Garawany (2024), automated feedback systems enhance students' capacity to structure argumentative writing by offering specific prompts for paragraph coherence and logical progression. Similarly, Suharto et al. (2025) indicated that intelligent writing aids facilitate structural enhancement by emphasizing transitional words and suggesting paragraph reordering to improve the coherence of arguments (Suharto et al., 2025). Collectively, these studies highlight that AI input can enhance sophisticated planning skills, allowing students to acquire organizational patterns more efficiently than through instructor feedback alone.

Furthermore, qualitative insights further validate these quantitative results. Student C claimed that QuillBot's guidance on paragraph construction "enhances the presentation of ideas coherently and professionally," especially in formal reports—reflecting El-Garawany's (2024) remark on improved genre knowledge. Student H saw enhanced clarity and coherence in business correspondence, aligning with the

findings of Ro'isatin et al. (2023) about more seamless topic transitions (Ro'isatin et al., 2023). Ultimately, Student J articulated how QuillBot recognized feeble or fragmented arguments and facilitated content reorganization to enhance persuasive efficacy—a tangible example of an AI-assisted scaffolding document (Dja'far & Hamidah, 2024). These results indicate that QuillBot effectively resolves structural issues in business writing, thereby promoting coherence, logical development, and professional formatting.

Figure 5 demonstrates that 16 students (32%) strongly agree, 34 students (68%) agree, and no respondents selected neutral, disagree, or strongly disagree about the alignment of QuillBot alerts me when industry-related terms are used inappropriately or inconsistently. Furthermore, 21 students (42%) strongly concur, 29 students (58%) concur, and no students reacted neutrally, disagreed, or strongly disagreed with the premise that QuillBot offers pertinent examples or synonyms appropriate for a professional business context.

The additional evidence corroborating the thesis was derived from the interview findings.

Excerpt 3:

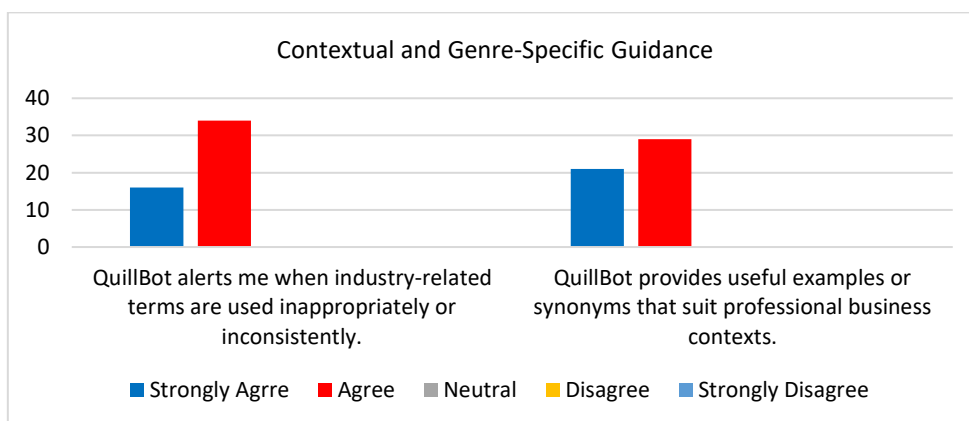
"Whenever I write scripts in promoting video MSMEs in Indonesia, QuillBot's recommendations for polite salutations and closings are exactly right. In order to make the project video seem more professional." – Student B, Interview, May 22, 2025.

Excerpt 4:

"QuillBot assists me in selecting business-convention-compliant language and wording for executive summaries. I can keep the proper

degree of formality and detail thanks to its context-aware paraphrase." – Student C, Interview, May 22, 2025.

Figure 5
Contextual and Genre-Specific Guidance



These findings correspond with established studies on AI-driven feedback mechanisms in specialized writing domains. Moreover, Hamidah (2024) established that automated writing tools improve students' proficiency in discipline-specific vocabulary by identifying incorrect word usage and providing contextually appropriate alternatives. According to Rasoul et al. (2023), intelligent feedback methods markedly enhance learners' ability to select contextually relevant language, thereby enhancing the authenticity and accuracy of professional writing. Collectively, these investigations validate that QuillBot's contextual alerts and synonym recommendations serve as efficient supports for business English composition.

Qualitative interview snippets also corroborate these quantitative findings. Student B noted that QuillBot's suggestions for courteous salutations and closings enhanced the professionalism of promotional video scripts,

demonstrating the tool's awareness of genre traditions. Student C observed that QuillBot's context-sensitive paraphrasing preserved the appropriate degree of formality and detail in executive summaries. These testimonials align with El-Garawany's (2024) findings that AI feedback systems not only correct superficial faults but also help learners assimilate the conventions of specific professional genres, thereby promoting both precision and rhetorical suitability.

Discussion

The present study demonstrates that QuillBot serves as a multifaceted feedback instrument in Business English writing, corroborating and extending prior research by underscoring both mechanical and higher-order benefits. Whereas earlier investigations primarily emphasized grammatical enhancement through AI-mediated feedback, our findings reveal that QuillBot also facilitates structural organization, context-specific

guidance, and affective gains such as reduced anxiety and heightened confidence.

The findings of this study align closely with those of previous research by Dja'far and Hamidah (2024), which demonstrate substantial improvements in grammatical accuracy and lexical diversity when learners use AI feedback tools (Dja'far & Hamidah, 2024). Our data align with these results: all participants reported that QuillBot improved grammatical accuracy, mechanical corrections. It corroborates and extends El-Garawany's (2024) findings, which highlighted improvements in coherence primarily in academic writing, by illustrating similar benefits within the business English domain. Possible explanations for these alignments and divergences include QuillBot's multifunctional design, which combines grammar checking with sophisticated paraphrasing, enabling greater improvements in writing clarity and original expression.

Additionally, focusing on business English likely requires tools that address not only language mechanics but also conceptual precision and genre-specific communication needs, which traditional automated evaluation tools may overlook. The integration of paraphrasing as a core feature better supports the demands of complex professional writing tasks, as evidenced by the broader impact on conceptual clarity observed in this study compared with earlier research focused on surface-level corrections. In summary, the results confirm existing literature on grammatical and lexical gains from AI feedback, but uniquely advance understanding by evidencing substantial improvements in conceptual clarity facilitated by advanced

paraphrasing functions tailored to professional business writing.

According to Rasoul et al. (2023), automated feedback systems speed up revision cycles and reduce writing anxiety, improving writing efficiency and affective reactions. Likewise, this study indicated unanimity improvements in drafting speed, with 94% reporting enhanced confidence. Both studies highlight the anxiety-mitigating function of AI feedback tools in writing contexts, supporting their role in fostering writing efficiency and positive affective responses. However, this study diverges by revealing a deeper motivational impact through qualitative data, in which students explained lasting confidence gains across varied business writing tasks, such as MSME promotional scripts. It contrasts with Rasoul et al.'s (2023) reported average anxiety reduction of 20%, suggesting that continuous AI scaffolding in this study cultivates longer-term self-efficacy beyond the immediate effects of a single session. Possible explanations for this difference include the nature of sustained AI tool use in realistic professional writing scenarios, which may enhance students' perceived autonomy and mastery more than shorter, less context-rich interventions. Additionally, the mixed-methods approach of this study allowed triangulation of quantitative and qualitative data, providing richer insights into the emotional and motivational dimensions of AI feedback that prior research with primarily quantitative designs may have overlooked. Thus, while the results confirm the existing literature on anxiety reduction and efficiency gains, they expand understanding by demonstrating durable motivational benefits arising from ongoing AI-mediated business English writing.

Moreover, while Pitukwong and Saraiwang (2024) and Suharto et al. (2025) examined the impact of AI tools on paragraph coherence in academic writing, our results indicate that QuillBot significantly improves advanced organizational skills in business documents—98% of students acknowledged enhanced logical structure, and 100% affirmed clearer topic sentences. These findings align with El-Garawany's (2024) genre-specific assertions while also distinctly emphasizing AI's ability to replicate professional document formats, such as proposals and executive summaries, a domain that previous studies have inadequately addressed. However, this study highlights QuillBot's ability to replicate professional business document formats, such as proposals and executive summaries. This area has been inadequately explored in earlier research, which primarily focused on academic texts. This emphasis stems from differences in context and genre focus, as previous studies have not adequately addressed the unique structural conventions of business writing. The findings indicate that while AI tools improve coherence and organization, their potential to support specialized genres such as business writing represents a significant advancement. QuillBot's capability to structure complex documents for professional contexts reflects the growing sophistication of AI tools, suggesting their applicability is expanding beyond academic uses. Ultimately, the results not only reaffirm prior research on coherence enhancement but also uniquely highlight the enhanced support for professional business genres, pointing to promising opportunities for integrating AI writing tools in specialized educational environments.

Overall, the finding that QuillBot generates context-sensitive notifications for industry-specific terminology and suggests suitable synonyms (100% concordance) aligns with the conclusions of Dja'far and Hamidah (2024) about the acquisition of discipline-specific vocabulary. This study enhances understanding by demonstrating how these characteristics manifest in genuine business tasks—students reported that salutations, closings, and levels of formality aligned with real-world standards, thereby affirming QuillBot's contextual acumen in professional writing.

The primary strength of this study is its mixed-methods methodology, which combines quantitative survey data from 50 learners at two separate Indonesian universities with in-depth qualitative interviews. This design has both extensive and profound capabilities, facilitating the triangulation of mechanical, structural, and emotional results. Furthermore, by concentrating on a business English context—a pragmatic, career-focused area—our research has immediate educational significance.

Nevertheless, specific constraints require attention. The sample size, although adequate for initial insights, is small and sourced from only two institutions; the study depends on self-reported perceptions rather than direct assessment of writing performance via blind evaluation by expert raters. Subsequent studies should integrate objective evaluations of text quality to measure the extent of the. The lack of a control group using non-AI feedback technologies restricts the attribution of improvements solely to the QuillBot apps. Future research should juxtapose AI-mediated feedback with teacher feedback to discern distinct impacts.

Notwithstanding these constraints, the results possess distinct educational and institutional ramifications. Educators can use QuillBot as an auxiliary feedback tool to expedite draft revisions, support advanced writing abilities, and enhance student confidence. Due to its intuitive interface and seamless integration with platforms like Google Docs and email, universities can implement QuillBot to facilitate hybrid learning environments without requiring extensive. Moreover, language program managers ought to implement regulations that promote responsible AI use by integrating automated feedback with instructor oversight to address both superficial errors.

In professional development settings, business writing instructors can use QuillBot's contextual alerts to instill genre-specific language and document formats, thereby connecting academic tasks with workplace communication. Ultimately, future tool developers may leverage our insights to improve performance analytics dashboards that monitor longitudinal learner development, thereby

Conclusion

This study found that QuillBot effectively improves business English writing by enhancing grammar, vocabulary, and expression. All students agreed that it increased writing efficiency and confidence and reduced anxiety. It helped organize ideas logically, improved coherence, and bettered paragraph development. QuillBot also supported correct industry-specific language and enhanced professionalism. Qualitative feedback showed increased learner motivation and emotional benefits. However, since the study relied on self-reports and a single semester, future research

should use longer-term and objective assessments and compare QuillBot with other AI tools. Overall, this research offers valuable insights for educators seeking to integrate AI feedback to improve business English writing skills.

This study presents novel perspectives on the application of AI-powered feedback in English for Specific Purposes instruction. This study highlights QuillBot's extensive range of capabilities, from genre-specific coaching to grammatical correction. It offers instructors valuable guidance on using AI tools to enhance business English curricula and develop students' writing skills in a professional context.

References

- Bakri, I., Wulandari, M. F., Amalia, S. R., & Rut, W. M. (2024). Quillbot Integration in the Learning of English Writing Skills (Perception of Business Management Students). *International Journal of Research on English Teaching and Applied Linguistics*, 5(1), 53–58. <https://doi.org/10.30863/ijretal.v5i1.6412>
- Braun, V., & Clarke, V. (2016). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Creswell, J. W., & Creswell, J. D. (2018). A Mixed-Method Approach. In *Writing Center Talk over Time* (Fifth Edit). SAGE Publications, Inc. <https://doi.org/10.4324/9780429469237-3>
- Dangin, Rahmawan, A. D., & Setyawan, A. H. (2023). AI-powered writing tools on Indonesian higher education: How do educators see it? *International Journal of Educational Research & Social Sciences*, 4(5), 818–822.

- <https://doi.org/https://doi.org/10.51601/ijer.v4i5.721>
- Dja'far, V. H. (Politeknik N. M., & Hamidah, F. N. (Politeknik N. M. (2024). The Effectiveness of AI Technology in Improving Academic English Writing Skills in Higher Education. *Journal of Language and Literature Studies*, 4(3), 579–593. <https://doi.org/10.36312/jolls.v4i3.2031>
- El-Garawany, M. S. M. (2024). The Effects of a QuillBot-Based Intervention on English Language Majors' EFL Writing Performance, Apprehension, and Self-Efficacy. *Language Teaching Research Quarterly*, 43, 167–189. <https://doi.org/10.32038/ltrq.2024.43.10>
- Fathimatuzahro, M., & Rizkiyah, F. (2025). AI-driven feedback in EFL students' writing: enhance their skills? *A Journal of Culture, English Language Teaching, Literature and Linguistics (CELTIC)*, 12(1), 637–657. <https://doi.org/https://doi.org/10.22219/celetic.v12i1.40594>
- Junaedi, S. (2025). English Lecturers' Perceptions towards the Quillbot App: An Alternative for Students in Paraphrasing and Rewriting English Writing. *International Journal of Research in Education*, 5(1), 149–156. <https://doi.org/10.26877/ijre.v5i1.1219>
- Kawashima, T. (2023). Student perceptions of Grammarly, teacher's indirect and direct feedback: Possibility of machine feedback. *JALT CALL Journal*, 19(1), 113–139. <https://doi.org/10.29140/jaltcall.v19n1.1017>
- Pitukwong, K., & Saraiwang, S. (2024). Exploring the effectiveness of digital writing tools on Thai EFL students' writing. *Contemporary Educational Technology*, 16(3), 1–17. <https://doi.org/10.30935/cedtech/14808>
- Pratama, Y., Fridoolini, & Pitaloka, R. M. (2025). The impact of quillbot, an ai-powered writing tool, on efl students' argumentative essay writing skills. *ENGLISH REVIEW: Journal of English Education*, 13(1), 215–222. <https://doi.org/https://doi.org/10.25134/erjee.v13i1.9746>
- Putri, Y. A., Hadiyanto, A. K., & Mali, Y. C. G. (2024). EFL students' perceptions toward the use of electronic written feedback in academic writing classes. *Journal of English and Education (JEE)*, 10(2), 85–94. <https://doi.org/10.20885/jee.v10i2.35245>
- Rasoul, T. G. A. A. El, Aboelwafa, M. A., & Seddeek, A. M. R. M. (2023). Exploring the attitude of ESP learners towards using automated writing evaluation to assess their writing. 3(1), 157–173. <https://doi.org/http://dx.doi.org/10.21622/IJLCC.2023.03.1.157>
- Ro'isatin, U. A., Hoesny, M. U., & Adibah, A. (2023). The Implementation of ProWritingAid to Help Students Reduce Grammatical Errors in Writing Class. *International Virtual Conference on Language and Literature Proceeding IVICOLL 2023*, 3, 182–192. www.prowritingaid.com
- Suharto, R. P., Zubaidi, Nurdjizah, Putri, A. N., & Putri Sekarsari. (2025). The Use of Ai-Based Writing Tools (Quillbot and Chatgpt) in Developing the Writing Competence of Language Learners. *Esteem Journal of English Education Study Programme*, 8(2), 259–269. <https://doi.org/10.31851/esteem.v8i2.18956>
- Sutrisno, A., Fitriati, S. W., Rozi, F., & Semarang, U. N. (2025). Optimizing Argumentative Writing in the Digital Era: The Impact of ProWritingAid to Student Confidence and the Difficulties of

- AI-Driven*. 4778, 2236–2259.
<https://doi.org/10.24256/ideas.v13i1.6470>
- Tiwari, H. P. (2023). Challenges of Writing Research Articles in English for University-Level EFL Teachers. *Vision: Journal for Language and Foreign Language Learning*, 12(2), 129–146.
<https://doi.org/10.21580/vjv13i118591>
- Youn, C. H., Salam, A. R., & Rahman, A. A. (2025). AI-Driven tools in providing feedback on students' writing. *International Journal of Research and Innovation in Social Science (IJRISS)*, IX(2454), 58–67.
<https://doi.org/https://dx.doi.org/10.47772/IJRISS.2025.903SEDU0006>

Fahrur Rozi, Gina Larasaty, Sri Wahyuni, Christiani Tri Hapsari, Lulu April Farida, Andy Sutrisno, Yolinda Pramudanti, Amelia Widiastutik, Amrina Rosyada