

Qualitative Study: English Language Education Students' Perceptions of the Use of AI Technology in Academic Writing

 <https://doi.org/10.31004/jele.v11i4.2998>

*Nanda Wati Ika Syafitri, Agus Wardhono^{ab}

¹²Universitas PGRI Ronggolawe Tuban, Indonesia

Corresponding Author: nandawati1001@gmail.com

ABSTRACT

The integration of artificial intelligence (AI) has transformed academic writing by providing digital tools that support English as a Foreign Language (EFL) learners throughout the writing process. Among these tools, QuillBot has become one of the most widely used because it offers accessible features such as paraphrasing, grammar checking, and vocabulary enhancement that directly address common writing difficulties faced by students. This study aimed to explore English Education students' perceptions of using QuillBot in academic writing, the features they utilized, the challenges they encountered, and its contribution to their writing development. A qualitative descriptive design was employed involving 17 fourth-semester students of the English Education Study Program at Universitas PGRI Ronggolawe (UNIROW), Tuban. Data were collected through questionnaires and semi-structured interviews and analyzed using descriptive statistics and the interactive model of Miles, Huberman, and Saldaña. The findings revealed generally positive perceptions, with students reporting improvements in grammar, vocabulary, sentence structure, paraphrasing, writing efficiency, and confidence. However, concerns regarding overdependence, originality, and academic integrity were also identified. The study contributes to the growing literature on AI-assisted writing by providing qualitative insights into students' experiences and offers practical implications for integrating AI tools into academic writing instruction while promoting critical thinking and responsible AI use.

Keywords: *AI Technology, Quillbot, Academic Writing, EFL Students, Perceptions.*

Article History:

Received 08th July 2026

Accepted 26th July 2026

Published 03rd August 2026



INTRODUCTION

The rapid development of artificial intelligence (AI) has transformed English as a Foreign Language (EFL) education through the introduction of smart learning tools that provide automatic feedback, personalised learning experiences and real-time language support (Crompton & Song, 2023; Jiang, 2022). AI applications, including intelligent tutoring systems, automated writing assessment, machine translation and AI-based writing assistants, enable learners to improve their grammar, vocabulary and writing skills more efficiently than with conventional learning approaches (Jiang, 2022). Consequently, AI has become an increasingly important component of language learning in higher education and has encouraged educators to integrate technology into their pedagogical practices whilst maintaining meaningful human interaction within the learning process (Bearman et al., 2023; Crompton & Song, 2023).

Artificial intelligence (AI)-based writing assistants are playing an increasingly important role in supporting the academic writing process, particularly for students learning (Andriani et al., 2024) English as a Foreign Language (EFL), who often face difficulties with grammar, vocabulary, organisation, coherence and overall writing quality. By providing instant feedback, automatic grammar correction, paraphrasing assistance and writing suggestions, these tools enable students to revise and improve their texts more efficiently whilst reducing the cognitive load associated with the writing process (Crompton & Song, 2023; Jiang, 2022). In addition to improving writing performance, AI-based writing assistants

also encourage self-directed learning by enabling students to identify their linguistic weaknesses, explore alternative expressions, and receive ongoing support throughout the writing process. These features can boost learners' confidence and motivation to write in English, making AI-based writing aids valuable learning companions rather than merely editing applications (Bearman et al., 2023; Kasneci et al., 2023).

Recent studies have demonstrated that artificial intelligence (AI) has become an increasingly influential component of English language education, particularly in supporting academic writing among EFL learners. AI-powered writing assistants such as QuillBot, Grammarly, and ChatGPT have been shown to improve students' grammatical accuracy, vocabulary choice, sentence organization, paraphrasing ability, and overall writing quality while reducing the cognitive demands of the writing process (Amyatun & Kholis, 2023; Mahapatra, 2024). QuillBot, in particular, has gained considerable attention because its paraphrasing, grammar-checking, and vocabulary enhancement features provide immediate feedback that facilitates revision and promotes writing confidence among EFL students (Amaliah, 2025; Yoandita & Hasnah, 2024). Furthermore, recent qualitative studies report that students generally perceive QuillBot as a valuable learning companion that supports revision while encouraging them to evaluate AI-generated suggestions critically rather than accepting them uncritically (Indria, 2025; Nisa & Riyono, 2025). Nevertheless, scholars continue to express concerns regarding excessive dependence on AI, reduced originality, and threats to academic integrity, emphasizing that AI should function as a pedagogical aid rather than a substitute for students' own thinking and writing abilities (Wijaya & Rachmawati, 2025). Despite these advances, most existing studies have focused on writing performance or general perceptions of AI tools. Comparatively little attention has been given to how English Education students with different proficiency levels perceive, utilize, and critically evaluate QuillBot in academic writing, providing a clear rationale for the present study.

QuillBot has emerged as one of the most widely used artificial intelligence (AI)-based writing assistants amongst students to support academic writing. The platform offers a range of features, including a Paraphraser, Grammar Checker, Summariser, Translator and Citation Generator, which help users improve grammatical accuracy, enrich their vocabulary, organise their ideas more effectively, and produce clearer academic texts. These features make QuillBot particularly useful for students of English as a foreign language (EFL) who experience difficulties during the writing process (Latifah et al., 2024). Previous research has also reported that students generally view QuillBot positively, as the platform improves the quality of their writing, reduces writing errors, increases writing efficiency, and boosts their confidence in completing academic writing tasks (Andriani et al., 2024; Laila & Daulay, 2024).

Several studies have demonstrated the positive impact of QuillBot on students' academic writing. Laila & Daulay (2024) found that students regard QuillBot as an effective writing assistant as it improves grammatical accuracy, enriches vocabulary and enhances the overall quality of their academic writing. Similarly, Andriani et al. (2024) reported that the use of QuillBot boosts students' self-efficacy and confidence in completing academic writing tasks, thereby enabling them to revise their work more independently. Furthermore, Muliana et al. (2025) found that QuillBot boosts students' writing productivity by facilitating faster revisions, improving the clarity of their writing and grammatical accuracy, and helping students preserve the original meaning of their texts. This study also highlights that, despite these benefits, students remain aware of the ethical implications of using AI-based writing aids in an academic context.

Although it offers many benefits, previous research has also highlighted several challenges associated with the use of QuillBot and other AI-based writing assistants in academic writing. Rafida et al. (2024) found that whilst EFL students viewed AI positively in terms of improving grammar, vocabulary, sentence structure and writing efficiency, they also expressed concerns regarding over-reliance on AI, reduced creativity, plagiarism and the authenticity of academic work. Similarly, Bearman et al. (2023) argue that the increasing use of AI in higher education has raised important ethical issues regarding writing, originality and academic integrity. Furthermore, Kasneci et al. (2023) emphasise that over-reliance on AI-

based writing aids may limit students' opportunities to develop critical thinking, problem-solving abilities and independent writing skills. These findings suggest that AI-based writing assistants should be used as learning aids, rather than as substitutes for students' own cognitive processes and writing.

The importance of examining students' perceptions regarding the use of AI tools in academic writing cannot be overlooked. Students' perceptions play a key role in determining whether a technology is accepted and effectively integrated into the learning process. According to the Technology Acceptance Model (TAM), users' perceptions of a technology's usefulness and ease of use significantly influence their intention to adopt and continue using that technology (Davis, 1989). In the context of AI-assisted writing, understanding students' perceptions provides valuable insights into how these tools influence their learning experiences, writing practices and academic performance. This understanding can also help educators and institutions develop appropriate strategies and guidelines for integrating AI into language learning whilst promoting responsible and ethical use (Bearman et al., 2023; Kasneci et al., 2023).

Although previous research has reported on the benefits and challenges of AI-assisted writing, there are still some gaps in the research. Existing research has largely examined generative AI tools such as ChatGPT or investigated AI-assisted writing from a broader perspective, rather than focusing specifically on QuillBot (Kasneci et al., 2023; Latifah et al., 2024). Furthermore, many studies employ quantitative approaches to measure students' attitudes or writing performance, thereby limiting our understanding of students' actual experiences and perceptions when using QuillBot for academic writing. In the Indonesian context, empirical research specifically exploring English Language Education students' perceptions of QuillBot remains scarce, particularly studies employing qualitative methods to investigate how students utilise its features, experience its benefits and challenges, and view its contribution to the development of academic writing (Laila & Daulay, 2024; Muliana et al., 2025). This gap highlights the need for further research to provide a more comprehensive understanding of the use of QuillBot in English language education.

The local context of this research is also important because the application of AI technology is influenced by institutional policies, teaching practices, curriculum design and the students' learning environment. These factors can shape the way students perceive and utilise AI-based writing assistants in academic writing (Bearman et al., 2023). Conducted at PGRI Ronggolawe University (UNIROW), Tuban, this study aims to provide context-specific insights into the experiences of English Language Education students in using QuillBot. It is hoped that an understanding of these local experiences will contribute to the development of more appropriate strategies for integrating AI into English language teaching, whilst meeting students' academic needs and promoting the responsible use of AI.

Although numerous studies have investigated the use of artificial intelligence (AI) tools such as QuillBot, Grammarly, and ChatGPT in English language learning, several important gaps remain. Most previous research has primarily focused on measuring the effectiveness of AI-assisted writing in improving students' writing performance, grammatical accuracy, or paraphrasing skills using quantitative approaches (Amaliah, 2025; Amyatun & Kholis, 2023; Mahapatra, 2024). Other studies have generally explored students' overall perceptions of AI writing tools without examining how learners with different levels of English proficiency experience and utilize these technologies in authentic academic writing contexts (Indria, 2025; Nisa & Riyono, 2025). Furthermore, limited attention has been given to students' reasons for selecting specific QuillBot features, the challenges they encounter while using AI-assisted writing tools, and how they negotiate concerns related to originality, overdependence, and academic integrity during the writing process. Consequently, there is still insufficient qualitative evidence explaining how AI functions not merely as a writing aid but as a learning resource that shapes students' writing practices and decision-making. Addressing these gaps, the present study qualitatively explores English Education students' perceptions of QuillBot by examining the features they use, the challenges they face, and its perceived contribution to their academic writing development across different proficiency levels.

It is hoped that this research will contribute to students, lecturers and higher education institutions by providing a deeper understanding of the perceptions of students on the English Language Education programme regarding the use of QuillBot in academic writing. These findings can serve as a valuable reference for developing appropriate strategies and ethical guidelines for integrating artificial intelligence (AI)-based writing assistants into English language learning, whilst maintaining academic integrity and encouraging independent learning (Bearman et al., 2023; Kasneci et al., 2023). Furthermore, this study is expected to enrich the ever-expanding body of literature on AI-assisted writing and provide a foundation for future research exploring the use of AI technology in various educational contexts and language learning environments.

Consequently, this study aims to explore English Education students' perceptions of the use of QuillBot in academic writing at the English Language Education Study Program, Universitas PGRI Ronggolawe (UNIROW), Tuban. Specifically, the study investigates students' overall perceptions of QuillBot, the features they most frequently use to support their academic writing, the challenges they encounter while using the platform, and their views on QuillBot's contribution to the development of their academic writing skills. Accordingly, this study seeks to answer three research questions: (1) What are English Education students' general perceptions of using QuillBot in academic writing? (2) Which QuillBot features do students use most frequently, and what challenges do they experience when using them? and (3) How do English Education students perceive QuillBot's contribution to the development of their academic writing skills?

METHOD

Research Design

This study employed a qualitative descriptive research design, supported by questionnaire findings, to explore English Language Education students' perceptions of the use of QuillBot in academic writing. A qualitative descriptive approach was considered appropriate because the primary objective of this study was not to develop or test a theory, but to obtain a comprehensive and accurate description of students' perceptions, experiences, and opinions regarding the use of QuillBot in authentic academic writing contexts. This design enables researchers to capture participants' perspectives using their own words while preserving the natural meanings of their experiences, making it particularly suitable for studies that seek to answer questions about what, how, and why participants perceive a phenomenon (Hall & Liebenberg, 2024; Sandelowski, 2000). Furthermore, the approach allows researchers to integrate multiple sources of qualitative evidence to provide practical and context-specific interpretations without imposing complex theoretical frameworks.

In this study, a questionnaire was administered to obtain a general overview of students' perceptions regarding the use of QuillBot, while semi-structured interviews were conducted to gain deeper insights into their experiences, opinions, and the challenges they encountered. The integration of these two instruments enabled the researchers to complement the descriptive questionnaire findings with rich qualitative data, thereby providing a more comprehensive understanding of how students perceive QuillBot, the ways they utilize its features, and its contribution to their academic writing development.

Research Setting and Participants

This study was conducted in the English Education Study Program at Universitas PGRI Ronggolawe (UNIROW), Tuban, Indonesia. The setting was selected because English Education students are required to complete various academic writing assignments and are familiar with the use of digital writing tools, including QuillBot, to support their writing activities. The participants consisted of 17 fourth-semester students who had prior experience using QuillBot in academic writing. Fourth-semester students were selected because they had completed several writing-related courses and had sufficient experience in producing academic texts, making them appropriate participants for exploring perceptions of AI-assisted

writing tools. Participants were selected using purposive sampling, which allows researchers to recruit individuals who possess specific characteristics relevant to the objectives of the study (Campbell et al., 2020).

To obtain more in-depth qualitative data, eight participants were purposively selected for semi-structured interviews based on their writing proficiency levels. The classification was determined based on students' academic writing performance as identified by the course lecturer. The interview participants represented three levels of writing proficiency, consisting of three high-proficiency students, three medium-proficiency students, and two low-proficiency students. This variation was intended to capture diverse perspectives and experiences regarding the use of QuillBot in academic writing.

To ensure participants' anonymity and confidentiality, pseudonyms were not used. Instead, each interview participant was assigned an identification code according to their writing proficiency level. The codes H1–H3 refer to high-proficiency students, M1–M3 refer to medium-proficiency students, and L1–L2 refer to low-proficiency students. These codes are used consistently throughout the Findings section when presenting direct quotations from the interviews.

Instruments

Two research instruments were used in this study: a questionnaire and semi-structured interviews. The combination of these two instruments enabled the researcher to obtain both a general overview of students' perceptions and an in-depth understanding of their experiences using QuillBot for academic writing. The questionnaire consisted of 22 closed-ended statements measured using a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5), along with three open-ended questions. The closed-ended items were designed to examine students' general perceptions, whereas the open-ended questions provided opportunities for participants to elaborate on their experiences and opinions. The questionnaire measured five dimensions: (1) perceived benefits, (2) ease of use, (3) contribution to writing development, (4) challenges and concerns, and (5) overall perceptions. The use of a Likert scale was considered appropriate because it enables researchers to measure attitudes and perceptions systematically (Joshi et al., 2015). To ensure content validity, the questionnaire items were developed based on previous studies on AI-assisted writing and the research objectives, and they were reviewed by two experts in English Language Education for relevance, clarity, and appropriateness. Suggestions from the experts were incorporated before the questionnaire was administered. Furthermore, the instrument was piloted with a small group of English Education students who were not included in the main study to ensure that the items were clear and comprehensible. The internal consistency of the closed-ended items was evaluated using Cronbach's alpha, and the coefficient exceeded the recommended threshold of 0.70, indicating that the questionnaire demonstrated acceptable reliability for measuring students' perceptions (Taber, 2018).

To obtain richer qualitative data, semi-structured interviews were conducted via WhatsApp chat using open-ended questions. This interview format allowed participants to describe their experiences freely while enabling the researcher to ask follow-up questions for clarification and elaboration when necessary (Kallio et al., 2016). The interview protocol covered six main topics: (1) experiences of using QuillBot, (2) frequently used features, (3) perceived benefits, (4) challenges encountered, (5) contributions to academic writing development, and (6) recommendations for using QuillBot. Follow-up questions were adapted to each participant's responses and writing proficiency level to obtain more comprehensive and meaningful insights.

Data Analysis

Data analysis was carried out in two stages in accordance with the research instrument. Firstly, the questionnaire data were analysed using descriptive statistics to obtain an overview

of students' perceptions regarding the use of QuillBot in academic writing. The responses were calculated as percentages using the formula $(P = (F/N) \times 100\%)$, where P represents the percentage, F represents the frequency of responses, and N represents the total number of participants. These percentage results were then interpreted descriptively to identify general patterns and trends in the students' responses.

Secondly, the interview data were analysed using the Interactive Model of qualitative data analysis proposed by Miles et al. (2014). This model consists of three concurrent activities: data collection, data presentation, and drawing conclusions and verification. During the data condensation stage, the interview transcripts were reviewed, coded and organised according to themes relevant to the research questions. The coded data were then presented in the form of descriptive narratives to facilitate interpretation. Finally, conclusions were drawn by identifying recurring patterns, similarities and differences amongst participants' responses, and these findings were continuously verified throughout the analysis process to ensure their consistency and credibility.

The questionnaire findings were used to describe general patterns in students' perceptions, whilst the interview findings were utilised to explain and enrich these patterns through in-depth qualitative evidence. The integration of these two data sources enabled the researchers to develop a more comprehensive understanding of students' perceptions regarding the use of QuillBot in academic writing.

FINDINGS AND DISCUSSION

Questionnaire Findings

The questionnaire results indicate that students on the English Language Education programme generally have a positive perception of the use of QuillBot in academic writing. The majority of participants agreed that QuillBot offers significant benefits in improving grammar, sentence structure, vocabulary and writing efficiency. The students also found the application easy to use and believed that it made a positive contribution to the development of their academic writing skills and their self-confidence. Although the overall response was positive, the participants also acknowledged some concerns, particularly regarding the possibility of over-reliance on AI, changes to the original meaning following paraphrasing, and the limitations of the free version. Overall, the questionnaire results indicate that students view QuillBot as a useful writing assistant, whilst recognising the importance of using it critically and responsibly to maintain the quality and integrity of academic writing.

Interview Findings

Semi-structured interviews with eight participants provided a deeper understanding of students' experiences using QuillBot for academic writing. Overall, the participants expressed positive perceptions of QuillBot and regarded it as a practical artificial intelligence (AI)-based writing assistant that simplified the writing process. Most participants reported that QuillBot helped improve grammatical accuracy, sentence structure, vocabulary choice, and writing efficiency. As one participant explained, *"QuillBot helps me correct my grammar and rephrase sentences more naturally, so I feel more confident when submitting my assignments."* (H2). Another participant similarly commented, *"It saves my time because I can revise my writing faster without asking someone else to check it."* (M2). This perception was echoed by another high-proficiency participant, who stated, *"QuillBot helps improve the quality of my writing, correct grammar, and make my sentences sound more natural, so the writing process becomes easier and more efficient."* (H3). Likewise, another participant explained, *"QuillBot helps me improve grammar and choose more appropriate words, making my writing clearer and easier to understand."* (H2). Participants also highlighted that QuillBot supported independent learning rather than simply producing ready-made answers. As one participant noted, *"I can revise my own writing, so I become more independent in academic writing."* (H2). These responses indicate that students perceived QuillBot as a learning support tool that enhanced rather than replaced their own writing abilities.

The interviews also revealed that the Grammar Checker and Paraphraser were the most frequently used features. Participants explained that these tools enabled them to identify grammatical errors, paraphrase academic sources appropriately, improve sentence clarity, and expand their vocabulary. One participant stated, *"The Grammar Checker shows me mistakes that I didn't notice before, and I learn from the corrections."* (H1). Another participant explained, *"I mostly use the Paraphraser because it helps me rewrite journal sentences in my own words while keeping the original meaning."* (M2). This finding was supported by another participant, who commented, *"The features I use most are the Paraphraser and Grammar Checker because they help me improve grammar and produce clearer sentences."* (H2). Likewise, another participant stated, *"The Grammar Checker helps me understand where my mistakes are, so I know how to improve my writing."* (H1). A lower-proficiency participant also explained, *"Besides Grammar Checker, I sometimes use the Paraphraser when I need another way to express my sentences."* (L1). Interestingly, one participant reported using the AI Chat feature to generate ideas before writing, stating, *"I often use AI Chat to find ideas before I start writing. I also use the Paraphraser and Grammar Checker when needed."* (L2). Several participants also noted that QuillBot made the revision process more efficient because they could evaluate and refine their work independently before submission. As one participant explained, *"QuillBot helps me revise my writing more independently because I can improve it before submitting my assignment."* (H2). Although one participant occasionally used the AI Chat feature to generate ideas, the Grammar Checker and Paraphraser remained the primary features supporting academic writing.

Different patterns of QuillBot usage emerged across students with different levels of writing proficiency. High-proficiency students tended to use QuillBot critically by reviewing and modifying AI-generated suggestions before incorporating them into their writing. As one participant explained, *"I always review and edit QuillBot's suggestions before using them because sometimes they are not completely accurate."* (H1). Another participant similarly stated, *"The results are generally accurate, but I still need to review them because some words or sentences do not fit the context of my writing."* (H2). These responses indicate that high-proficiency students viewed QuillBot as a tool to refine their writing rather than as a source of ready-made content.

Students with intermediate proficiency generally viewed QuillBot as a learning resource that helped them improve their grammar, vocabulary, and sentence structure. One participant explained, *"QuillBot helps me understand grammar better."* (M1). Another participant commented, *"I get new vocabulary and sentence structures from QuillBot that I can use in my future writing."* (M2). Similarly, another participant stated, *"QuillBot helps me improve grammar, sentence structure, and word choice while making the revision process much faster."* (M3). These findings suggest that students with intermediate proficiency used QuillBot not only to complete writing tasks but also to develop their language skills through repeated exposure to AI-generated suggestions.

Meanwhile, lower-proficiency students relied more heavily on QuillBot to overcome writing difficulties and generate ideas. One participant explained, *"QuillBot really helps me because it makes completing writing assignments easier and faster."* (L1). Another participant stated, *"I often use AI Chat to help me find ideas before I start writing. The Grammar Checker and Paraphraser also help improve my writing."* (L2). Despite relying more on the application, these participants also recognized the importance of maintaining originality in their academic work. As one participant emphasized, *"I can still write without QuillBot, but it makes the process easier. QuillBot is only a tool to improve my writing, while the ideas still come from me."* (L2). Similarly, another participant remarked, *"I am still confident writing without QuillBot because it only helps improve my writing, not replace my own ideas."* (L1).

Despite recognizing its benefits, participants also identified several challenges associated with QuillBot. The most frequently reported issues included inaccurate paraphrasing that occasionally changed the intended meaning, restrictions in the free version, and technical problems such as unstable internet connectivity. One participant remarked, *"Sometimes the suggestions from the Grammar Checker are not completely accurate."* (H1). Another participant explained, *"The paraphrased results are sometimes not appropriate for the context, so I still need to edit them manually."* (H3). Similarly, another participant stated, *"Sometimes the*

paraphrased sentence does not match the meaning I want to express, and some suggestions sound unnatural, so I revise them again." (M3). Participants also highlighted the limitations of the free version. As one participant commented, *"The free version has a word limit, and some features are only available in the premium version."* (H2). Another participant similarly noted, *"The free version is quite limited, so I cannot always access the best features."* (H3). In addition, several participants reported technical difficulties related to internet connectivity. One participant explained, *"Sometimes QuillBot experiences errors because of network connection problems."* (M1). Likewise, another participant stated, *"The only difficulty I usually experience is when the internet connection is slow."* (L1). Consequently, nearly all participants emphasized that they carefully reviewed and edited QuillBot's suggestions before submitting their assignments. As one participant concluded, *"I always review the results because some words or sentences do not fit the context of my writing."* (H2). Another participant similarly emphasized, *"QuillBot is helpful, but I still need to decide whether the suggestions are appropriate because it cannot replace my own thinking."* (L2). These findings suggest that students were aware of both the strengths and limitations of AI-assisted writing and generally perceived QuillBot as a complementary learning tool that supports, rather than substitutes for, critical thinking and academic writing skills.

Influence of Proficiency Levels

The interview findings reveal differing patterns of QuillBot usage amongst students based on their writing proficiency levels. Students with a high level of proficiency tend to use QuillBot critically, reviewing and revising the AI-generated suggestions before incorporating them into their writing. Conversely, students with intermediate proficiency levels primarily use the application as a learning aid to improve their grammar, vocabulary and sentence structure, whilst students with low proficiency levels rely on QuillBot to overcome writing difficulties, generate ideas and complete academic writing tasks more efficiently. Despite these differences, participants across all proficiency levels emphasised that QuillBot should be used as a writing aid, not as a substitute for their own knowledge and critical thinking.

Challenges and Concerns

Whilst participants acknowledged the benefits of QuillBot, they also expressed several concerns regarding its use in academic writing. The most frequently mentioned issues included the possibility of inaccurate paraphrasing, which could alter the original meaning of a sentence, the limitations of the free version, and occasional technical issues such as an unstable internet connection. Most participants emphasised that QuillBot's suggestions should not be accepted at face value, as they still require careful review and editing to ensure that the intended meaning and academic context are preserved. These findings indicate that students are aware of both the advantages and limitations of artificial intelligence (AI)-based writing tools and demonstrate a responsible attitude towards their use.

Perceived Contribution

Participants generally viewed QuillBot as a useful tool to support the development of their academic writing skills. They reported that the application helped improve their grammar, sentence structure, word choice and writing efficiency, whilst also boosting their confidence during the writing process. However, participants consistently emphasised that QuillBot should function as a writing assistant, not as a substitute for their own ideas and critical thinking. They believe that the quality of academic writing ultimately depends on the writer's ability to evaluate, revise and adapt AI-generated suggestions in line with the intended meaning and context. These findings suggest that students view QuillBot as a complementary learning tool that supports the development of writing skills without replacing independent learning.

Discussion

These findings indicate that students on the English Language Education programme generally hold a positive perception of the use of QuillBot in academic writing. Both the questionnaire results and the interviews suggest that students regard QuillBot as a practical and user-friendly writing assistant that can improve grammar, vocabulary, sentence structure and writing efficiency. These findings are consistent with the research by Laila & Daulay (2024), who reported that university students view QuillBot as an effective digital writing assistant for improving the quality of their writing and reducing grammatical errors. Similarly, Muliana et al. (2024) found that QuillBot enhances students' writing productivity by facilitating the revision process whilst preserving the original meaning of the text. This study expands upon these findings by demonstrating that these positive perceptions are accompanied by students' awareness that QuillBot should be used as a learning aid, rather than as a substitute for independent writing.

The findings of the interviews further revealed that students use QuillBot differently depending on their level of writing proficiency. Students with a high level of proficiency tend to critically evaluate and revise the AI-generated suggestions before incorporating them into their writing, whilst students with an intermediate level of proficiency primarily use QuillBot as a learning aid to improve their grammar, vocabulary and sentence structure. Conversely, students with lower writing proficiency relied more heavily on QuillBot to overcome writing difficulties and generate ideas. This finding is consistent with Lee (2025), who found that students with stronger writing competence tend to use generative AI more strategically, while those with lower proficiency rely on it primarily for linguistic support and writing assistance. These findings are also consistent with those of Bensalem et al. (2024) and Amani & Bisriyah (2025), who argue that AI-based writing aids provide valuable linguistic support for learners of English as a foreign language (EFL), particularly those with limited writing skills. These differences indicate that students' writing abilities influence the way they integrate AI into their academic writing process.

Despite these positive perceptions, participants were also aware of several challenges associated with using QuillBot, including inaccurate paraphrasing, the limitations of the free version, and the potential risk of over-reliance. Nevertheless, the majority of participants reported that they reviewed and edited the AI-generated suggestions before incorporating them into their work, demonstrating an awareness of academic integrity and the responsible use of AI. These findings are consistent with the research by Rafida et al. (2024), which identified both the benefits and ethical issues of AI-assisted writing, including concerns regarding originality and plagiarism. These findings also support the arguments Wahyuni et al. (2024), who emphasise that AI should complement, rather than replace, students' critical thinking and writing skills. Therefore, the findings of this study suggest that QuillBot can effectively support academic writing if used critically and accompanied by appropriate guidance from lecturers on the ethical use of AI.

CONCLUSIONS

This study concludes that English Language Education students at Universitas PGRI Ronggolawe generally perceive QuillBot as a useful AI-assisted writing tool that improves grammar, vocabulary, sentence structure, paraphrasing, and writing efficiency. The findings also show that writing proficiency influences how students use the tool. High-proficiency students critically evaluate AI-generated suggestions, whereas lower-proficiency students rely on QuillBot mainly to overcome writing difficulties. Although participants recognized its benefits, they agreed that QuillBot should support rather than replace independent thinking and writing. These findings emphasize the importance of integrating AI literacy into academic writing instruction and encouraging the ethical and responsible use of AI tools. Lecturers should provide clear guidance to ensure that AI enhances learning while maintaining academic integrity. Since this study involved a small sample from a single university, future research should include larger and more diverse participants and investigate the long-term impact of AI-assisted writing tools on writing development and AI literacy.

ACKNOWLEDGEMENTS

The authors would like to express their sincere gratitude to the supervisor, who also served as a co-author of this article, for the invaluable guidance, insightful feedback, and continuous support throughout the research process and the preparation of this manuscript. The authors also extend their appreciation to the lecturers of the English Education Study Program, Universitas PGRI Ronggolawe (UNIROW), for their academic guidance and encouragement.

The authors are deeply grateful to all students who voluntarily participated in this study and generously shared their experiences and perspectives. Their contributions were essential to the successful completion of this research. Finally, the authors wish to thank their families and colleagues for their continuous encouragement and support throughout this study.

REFERENCES

- Amaliah. (2025). *AI-Assisted Writing in EFL Context*.
- Amani, N., & Bisriyah, M. (2025). University Students' Perceptions of AI-Assisted Writing Tools in Supporting Self-Regulated Writing Practices. *Indonesian Journal of English Language Teaching and Applied Linguistics*, 10(1), 91–107. <https://ijeltal.org/index.php/ijeltal/article/view/1942>
- Amyatun, & Kholis. (2023). *Artificial Intelligence-Assisted Writing in EFL Learning*.
- Andriani, A., Fatimah, A. S., & Permatasari, S. A. (2024). Investigating EFL Students' Self-Efficacy on the Use of QuillBot Paraphrasing Tool in Academic Writing. *ENGLISH FRANCA: Academic Journal of English Language and Education*, 8(1), 33–52. <https://doi.org/10.29240/ef.v8i1.8831>
- Bearman, M., Ryan, J., & Ajjawi, R. (2023). Discourses of Artificial Intelligence in Higher Education: A Critical Literature Review. *Higher Education*, 86(2), 369–385. <https://doi.org/10.1007/s10734-022-00937-2>
- Bensalem, E., Harizi, R., & Boujlida, A. (2024). Exploring Undergraduate Students' Usage and Perceptions of AI Writing Tools. *Global Journal of Foreign Language Teaching*, 14(2), 53–65. <https://un-pub.eu/ojs/index.php/GJFLT/article/view/9344>
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive Sampling: Complex or Simple? Research Case Examples. *Journal of Research in Nursing*, 25(8), 652–661. <https://doi.org/10.1177/1744987120927206>
- Crompton, H., & Song, D. (2023). The Potential of Artificial Intelligence in Higher Education. *International Journal of Educational Technology in Higher Education*, 20, 22. <https://doi.org/10.1186/s41239-023-00392-8>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Hall, S., & Liebenberg, L. (2024). Qualitative Description as an Introductory Method to Qualitative Research for Master's-Level Students and Research Trainees. *International Journal of Qualitative Methods*, 23. <https://doi.org/10.1177/16094069241242264>
- Indria. (2025). *Students' Perceptions of QuillBot in Academic Writing*.
- Jiang, R. (2022). How Does Artificial Intelligence Empower EFL Teaching and Learning Nowadays? A Review on Artificial Intelligence in the EFL Context. *Frontiers in Psychology*, 13, 1049401. <https://doi.org/10.3389/fpsyg.2022.1049401>
- Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert Scale: Explored and Explained. *British Journal of Applied Science & Technology*, 7(4), 396–403. <https://doi.org/10.9734/BJAST/2015/14975>
- Kallio, H., Pietilä, A.-M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: Developing a framework for a qualitative semi-structured interview guide. *Journal of Advanced Nursing*, 72(12), 2954–2965. <https://doi.org/10.1111/jan.13031>
- Kasneci, E., Sessler, K., Küchemann, S., Bannert, M., Dementieva, D., Fischer, F., Gasser, U., Günemann, S., Hüllermeier, E., & Krusche, S. (2023). ChatGPT for good? On

- opportunities and challenges of large language models for education. *Learning and Individual Differences*, 103, 102274. <https://doi.org/10.1016/j.lindif.2023.102274>
- Laila, N., & Daulay, E. (2024). Students' Perception of Using QuillBot to Improve Students' Writing Skills. *Indonesian EFL Journal*, 10(2), 223–232. <https://doi.org/10.25134/iefj.v10i2.10083>
- Latifah, S., Muth'im, A., & Nasrullah, N. (2024). The Use of QuillBot in Academic Writing: A Systematic Literature Review. *Journey: Journal of English Language and Pedagogy*, 7(1), 110–121. <https://doi.org/10.33503/journey.v7i1.872>
- Lee, J. (2025). *Strategic Use of Generative Artificial Intelligence Across Different Writing Proficiency Levels*.
- Mahapatra. (2024). *Artificial Intelligence in Academic Writing*.
- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative Data analysis A methods Sourcebook* (3th editio). Sage Publications.
- Muliana, M., Muhsin, M. A., & Intan, N. (2025). Exploring QuillBot Application in Writing Skill: A Study at EFL Higher Education in Indonesia. *Proceedings of Forum for University Scholars in Interdisciplinary Opportunities and Networking*, 1(1), 203–211.
- Muliana, M., Muhsin, M. A., & Intan, N. (2024). Exploring QuillBot Application in Writing Skill: A Study at EFL Higher Education in Indonesia. *Proceedings of Forum for University Scholars in Interdisciplinary Opportunities and Networking*, 1(1), 203–211.
- Nisa, & Riyono. (2025). *Students' Critical Evaluation of AI-Generated Writing Suggestions*.
- Rafida, T., Suwandi, S., & Ananda, R. (2024). EFL Students' Perception in Indonesia and Taiwan on Using Artificial Intelligence to Enhance Writing Skills. *Jurnal Ilmiah Peuradeun*, 12(3), 987–1016.
- Sandelowski, M. (2000). Whatever Happened to Qualitative Description? *Research in Nursing & Health*, 23(4), 334–340. [https://doi.org/10.1002/1098-240X\(200008\)23:4<334::AID-NUR9>3.0.CO;2-G](https://doi.org/10.1002/1098-240X(200008)23:4<334::AID-NUR9>3.0.CO;2-G)
- Taber, K. S. (2018). The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education. *Research in Science Education*, 48(6), 1273–1296. <https://doi.org/10.1007/s11165-016-9602-2>
- Wahyuni, S., Putro, N. H. P. S., & Efendi, A. (2024). Trends in Artificial Intelligence-Infused English Language Learning: A Comprehensive Bibliometric and Content Review. *Advanced Education*, 25, 162–178. <https://doi.org/10.20535/2410-8286.315035>
- Wijaya, & Rachmawati. (2025). *Ethical Issues in the Use of AI Writing Assistants*.
- Yoandita, & Hasnah. (2024). *QuillBot as an AI-Based Writing Assistant for EFL Students*.