

REDUCING PLAGIARISM OF STUDENTS' ANALYTICAL EXPOSITION WRITING THROUGH QUILLBOT APPLICATION

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ABSTRACT

This classroom action research aimed to reduce plagiarism in students' analytical exposition writing through the use of the QuillBot application as a supportive tool in the writing revision process. The study involved 35 students of class XI-I at SMAN 3 Singaraja. Based on the preliminary observation, most students obtained similarity percentages above the acceptable threshold after their writing was checked using Turnitin, indicating that students still experienced difficulties in paraphrasing and tended to copy information directly from internet sources. The data were collected through students' writing drafts, Turnitin similarity reports, classroom observation, and informal interviews with the English teacher. The research was conducted in one cycle consisting of planning, action, observation, and reflection stages. The findings showed that after the implementation of the QuillBot-based instructional intervention, all students were able to reduce their similarity percentages below the acceptable threshold, indicating that both the individual and classical passing grade criteria had been achieved. Furthermore, the independent writing results showed that students were able to maintain low similarity percentages while using QuillBot independently. These findings indicate that the guided use of QuillBot in writing instruction can help reduce plagiarism and increase students' awareness of responsible academic writing practices.

Keywords: Analytical Exposition Text, Classroom Action Research, Paraphrasing, Plagiarism, Quillbot

INTRODUCTION

Writing is one of the four important language skills for EFL students to master. This skill plays an important role to enable them to create their own writing in a variety of different text genres as required by the curriculum (Ratminingsih et al., 2018). However, writing is not simply about knowing grammar or vocabulary.

Gabrielatos (2002) emphasizes that writing is a complex skill that requires a systematic approach, involving the development of awareness, consistent practice, and meaningful feedback. And writing demanded cognitive effort, as students must generate, organize, and transform the ideas thoughts into written that are readable to others (Arta et al., 2019). Similarly, Caswell (2004) explain that writing is not only a form of communication but also a recursive process that supports critical thinking such as prewriting, writing, revising, editing, and publishing that allows students to explore and refine their ideas meaningfully. Considering the complexity of writing, teacher plays an essential role in designing instructional strategies, in which the more well-designed are implemented, the more students are better in developing their skills, particularly in mastering the complex demands of writing (Asvini et al., 2020; Suputra, 2020).

Among the writing genres taught in the senior high school curriculum in Indonesia, analytical exposition is one of the genre that students are expected to master (Kementerian Pendidikan dan Kebudayaan, 2017). Analytical exposition typically follows a clear organizational structure consisting of three main parts: Thesis, Arguments, and Re-iteration. (Gerot & Wignell, 1994, cited in Yuliana & Gandana, 2018) explain that an analytical exposition typically follows a clear organizational structure consisting of three main parts: Thesis, Arguments, and Re- iteration. Building on this structure, Elfa, (2020) states that analytical exposition encourages students to engage with real-world issues and expressing it by logical reasoning. Consequently, this genres requires students to present arguments logically, integrate credible sources, and apply critical thinking skills (Hermayanti & Gunawan, 2024). However, multiple studies reveal that students struggle with writing analytical exposition texts. Difficulties include organizing ideas, using proper grammar and vocabulary, and constructing coherent arguments (Ariani, 2023; Elfa, 2020; Kemala et al., 2020; Kulsum & Khodijah, 2025; Pramono, 2019). Beyond these structural challenges, plagiarism has also detected to be a problem in students' analytical exposition writing. A study by Reski et al. (2021), found that many students copy directly from online sources without proper citation or paraphrasing. This behavior is often caused not by dishonesty, but by the demands of the genre itself. Students are required to support their arguments with credible sources; however, limited paraphrasing and referencing skills often lead them to copy text directly, resulting in high levels of plagiarism. This suggests that plagiarism in analytical exposition writing stems from insufficient instruction and instructional support rather than poor student motivation.

In academia, Pecorari & Petrić (2014) define plagiarism as using someone else's work without proper acknowledgment, which remains one of the most common and serious offenses in academic settings. And since plagiarism can violate the original writer's copyright, those who intentionally commit it may face legal consequences because plagiarism considered as a serious academic misconduct (Permana & Santosa, 2018). In Indonesia, the seriousness of plagiarism is addressed through Ministry of Education and Culture Regulation No.

17 of 2010, which outlines specific rules and sanctions for plagiarism, although this policy mainly targets higher education (Kementerian Pendidikan dan Kebudayaan, 2010). However, plagiarism has also been widely reported at the secondary and senior level school across different contexts. Previous studies reveal that EFL students in Indonesia often perceive copying as an act of friendship than misconduct, while in China and Hong Kong tend to overestimate their understanding of plagiarism, and students in Europe still copied from books due to laziness and ease of access (Chu et al., 2020; Dias & Bastos, 2014; Fadila, 2022; Kam et al., 2018). Plagiarism issue was also identified in the present study's context through a preliminary observation was conducted in XI-I class at SMAN 3 Singaraja, which revealed high similarity percentage in students' writing and limited awareness of paraphrasing and referencing strategies. Informal interviews with the teacher further indicated that writing instruction primarily emphasized grammar and organization, while explicit teaching of paraphrasing and ethical sources use was largely absent. Therefore, there was a clear need for an intervention that explicitly taught paraphrasing and citation through structured instruction and appropriate technological support.

One potential solution to address this issue is the integration of digital writing tools that support students during the writing process. One such tool is QuillBot, an AI-powered writing application that supports paraphrasing, grammar checking, translation and citation generation (Xuyen, 2023). QuillBot was founded in 2017 by three computer science students which are Rohit Gupta, Anil Jason, and David Silin. This application offers a comprehensive set of features such as Paraphraser feature that helps reduce similarity and support more original writing, Translation feature that beneficial for non-native English speaker, Grammar Checker feature that provides feedback on grammatical accuracy and sentence structure, Citation Generator that automatically creates citations and reference in APA, MLA, or Chicago style, and lastly the AI Detector that analyses the tone and determine if the writing contained machine-generated content (Fitria, 2021). Previous studies have reported positive perceptions of QuillBot among both students and teachers, highlighting its role in supporting paraphrasing, increasing writing confidence, and supported ethical writing (Luthfiah et al., 2024; Mahmud & Saud, 2024; Mohammad et al., 2024; Pham, 2024; Saputra & Hendriani, 2024; Yousra, 2024). Based on that positive perceptions, some researchers have started using QuillBot in writing instruction, but most of them only used the paraphrasing feature on the application (Amyatun & Kholis, 2023; Andriani et al., 2024; Gürbüz, 2024; Nugroho et al., 2025; Suharto et al., 2025; Thohir et al., 2024). Among all these studies, Anggraini et al. (2025) proposed a more structured six-step model for paraphrasing using QuillBot. Nevertheless, their approach still emphasized paraphrasing and did not fully explore other features such as grammar checking, translation, citation generator, or AI detection.

To address this gap, this study applied a Classroom Action Research (CAR) design that could involve several cycles, each consisting of Planning,

Action, Observation, and Reflection. The teaching scenario focused on reducing plagiarism with a structured teaching process using several QuillBot features and not just Paraphraser, but also Translator, Grammar Checker, Citation Generator, and AI Detector. Through guided instruction, students learned how to use these features responsibly to revise their drafts and produce more original writing. This instructional process was adapted and expanded from the six-step QuillBot teaching model proposed by Anggraini et al. (2025), which primarily emphasized paraphrasing to reduce plagiarism. In contrast, the present study combined several QuillBot features into a guided intervention that supported student during the revising and editing stages of the writing process. Rather than simply warning students against plagiarism, the intervention emphasized teaching students how to write ethically through structured practice and AI-assisted support. The lesson plan was adapted from Hyland's (2019) and grounded in the Process-based writing approach by Caswell (2004), which consisted of five key stages: Pre-writing, Writing, Revising, Editing, and Publishing, and was aligned with the classroom teacher's learning process. In this design, the Pre-writing and Writing stages were completed during the preliminary observation to obtain students' baseline writing, while the intervention-based lesson plan continued the writing process by focusing on Revising, Editing, and Publishing stages. To examine students' independent understanding after the intervention, a post-test task was administered, requiring them to write a new analytical exposition text independently. This also helped evaluate whether students can maintain low Similarity Percentages after the intervention-based lesson plan was completed. Therefore, this study aimed to investigate whether a guided QuillBot-based intervention could help reduce plagiarism in students' analytical exposition writing. By focusing on analytical exposition text, this study addressed a writing genre that has received limited attention in previous QuillBot-related research despite its importance in the Indonesian senior high school curriculum.

RESEARCH METHOD

This Quantitative study adopted Classroom Action Research (CAR), a model first introduced by Stephen Kemmis and Robin McTaggart in 1988. Kemmis and McTaggart emphasized that the primary goal of CAR was to improve teaching and learning practices through a collaborative, systematic, and reflective process. The process followed several cycles consisting of four main stages: Planning, Action, Observation, and Reflection (Kemmis & McTaggart, 1988). This study involved with several cycle with possibility of an additional cycle was conducted only if the first cycle did not produce satisfactory improvement, in which case the teaching scenario was revised and refined based on the Reflection from the first cycle. The research focused on investigating how the use of QuillBot supported the reduction of plagiarism in students' academic writing. As emphasized by Mahayanti & Utami (2017) and Tran (2009), CAR allows teachers and researcher to collaboratively address classroom problems and solved them together while developing reflective teaching practices.

This research took place at SMAN 3 Singaraja, a public senior high school located in Buleleng Regency, Bali. This school was selected based on preliminary observations of students' writing assignments, which revealed a significant issue with plagiarism. The subjects of this study were all 35 students of Class XI-I at SMAN 3 Singaraja, consisted of 16 female and 19 male students. The students had varying levels of English proficiency, but none had received structured training in paraphrasing or proper citation. This made them suitable participants for the study, as the intervention could directly address the observed challenges in academic writing and plagiarism.

Before implementing the CAR cycle, the researcher conducted a preliminary observation to understand the existing teaching and learning conditions. This observation consisted of two activities; Firstly, the researcher collected the students' First Draft, which were produced by the students before the implementation of the QuillBot intervention. The students' First Draft, which produced with students' previously developed arguments with a topic, "*Apakah penggunaan HP di kelas sebaiknya diperbolehkan? Mengapa?*" No Instructional support related to paraphrasing, plagiarism awareness, and the QuillBot application was also not used during this stage. At this stage, the students completed the Pre-writing and Writing process, as proposed in the process-based writing approach by Caswell (2004). During Pre-writing, the students developed arguments, while in the Writing stage, they wrote a complete analytical exposition based from that argument without instructional support related to paraphrasing or plagiarism awareness. Alongside, the researcher also conducted a classroom observation to documents the students' writing practices and their behavior in classroom. The First Draft were checked using Turnitin to identify their similarity percentages as the main data of this research. The purpose of this activity was to obtain an overview of the students' initial plagiarism level before the intervention. In the second activity, an informal interview was conducted with English teacher to gain insight into the actual classroom conditions and instructional practices before the research.

Moreover, these findings from preliminary observation helped the researcher decide the intervention' focus, design the lesson plan, and adapt the use of QuillBot in teacher writing instruction. Afterward, the researcher finalized the preparations and the Cycle 1 of the classroom action research began.

In Planning phase, the Researcher designed an Intervention-based Lesson Plan that integrated instructional activities, the intervention on the use of QuillBot as teaching writing instructions, the Writing Tasks for collecting the main data of the study, and also Photographic Observation as a supporting Instruments.

The base structure of the Lesson Plan was adapted from Hyland (2019, p.83), which provides a clear framework for organizing lesson plan in a second language context. In addition, the lesson plan was grounded in the Process-based writing approach by Caswell (2004), which by focusing on the Revising, Editing, and Published stages, following the Pre-writing and Writing stages completed

during the preliminary observation. The learning objectives in the lesson plans were adapted from those obtained from informal interviews with teachers, but expanded to include specific skills discussed in this study. The Lesson plan consisted of two meetings: **Meeting 1** was focused on the intervention on the use of QuillBot. Students were guided to familiarize themselves with the features such as Paraphraser, Grammar Checker, AI Detection, Citation Generator, and Translator. By using QuillBot in their writing, students were encouraged to reduce the plagiarism or similarity percentages and improve their writing originality. After the demonstrated of the features available in QuillBot, students received Writing Task 1, which guided them to revise the First Draft and producing the Revised Draft. In **meeting 2**, students independently repeated the full writing process from Pre-writing to Publishing, which concluded the Lesson Plan. This meeting functioned as post-test evaluation whether the students can improve and maintain a low similarity percentage after the intervention was finished. The students were given their Writing Task 2 to produced Independent Writing Draft, as students received a new prompt or topic to make their analytical exposition, revised and edited their writing using QuillBot, and completed the draft, without guidance from the teacher or researcher.

After structuring the Lesson Plan, the researcher developed the Instructional Intervention. The core of the Intervention focused on reducing plagiarism by integrating the QuillBot application in the lesson plan as the learning activities that students completed under teacher guidance. This initially adapted from Anggraini et al. (2025), who proposed a six-steps paraphrasing focused procedure of using QuillBot to reduce plagiarism; however, considering the different learning context and proficiency level of senior high school students, this study modified the model into a flexible instructional teaching using broader range of QuillBot's features. Instead of applying a fixed, step-by-step process, students were encouraged to flexibly select and combine features according to their writing progress and needs, while still being guided by the teacher to unsure appropriate use of the tool.

Table. 1 QuillBot Teaching Instruction for the Intervention

| Meeting | STEPS | QuillBot Action | | Description |
|---------|-------|---------------------|----------------|-------------|
| | | QuillBot's Features | Optional /Must | |
| | | | | |

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|------------------|--|----------------------|----------|--|
| Meeting 1 | Students received the second writing task and used QuillBot to assist them. They revisited their chosen sources, selected relevant sentences, and used QuillBot's Translator to translate them into Indonesian for better comprehension before paraphrasing. | Translator | Must | The Translator helped students understand the meaning and context of the original sentences before generating paraphrases. |
| | Students pasted the selected source sentences into the Paraphraser, chose a paraphrasing mode (such as Standard or Fluency), and generated a new version. | Paraphraser | Must | The Paraphraser produced multiple paraphrased options that kept the original meaning while varying the structure and vocabulary. |
| | Students compared the paraphrased output with the original sentence using the highlights, then revisited the Translator if needed to | Re-visit Paraphraser | Optional | Assists in lowering similarity and encourages critical thinking by deeper |

| | | | | |
|--|---|---|----------|--|
| | check meaning accuracy. They were also encouraged to add their own explanation or transitional phrases for better coherence. | Re-visit Translator | Optional | engagement with language. |
| | Student refines the paraphrased sentence by checking grammar and fluency using Grammar Checker. They can also re-type or adjust parts manually for clarity and flow. | Grammar Checker | Must | Grammar Checker suggests corrections for grammar, punctuation, and structure. Translator may assist if students want to recheck meaning. |
| | Student uses the Citation Generator to produce in-text citations and full APA references based on the original source. Once cited, they use AI Detection to reflect on the originality. | Citation Generator | Must | Citation Generator formats accurate citations |
| | | AI Detection | Must | AI Detection tool promotes awareness of authentic writing tone |
| | language quality and originality before submitting the second draft. | | | independent and responsible writing process. |
| | Students finalized their Analytical Exposition by inserting all revised and paraphrased content. After completing the draft, they revisited QuillBot's Grammar | Re-visit Grammar Checker & AI Detection | Optional | Re-visit Grammar Checker and AI Detection helps students refine grammar and assess originality in the |

| | | | | |
|------------------|--|--------------------------------|---|--------------------------------|
| | Checker and AI Detection to review | | | final stage, supporting a more |
| Meeting 2 | Students got the third writing tasks as the Post-Test, and independently making a new analytical exposition with QuillBot as their assistant. In here, students will independently use the QuillBot without any help from the teacher or researcher. | <i>(All QuillBot features)</i> | <i>(The optional/ must is depend on the students)</i> | |

The Writing Tasks were completed by the students under the teacher's guidance during the implementation of the lesson plan. The writing task used in this study were developed based on the integrated writing task framework by Knoch & Sitajalabhorn (2013). However, while their original model assumed that source texts were provided by the teacher or test designer, this study modified the approach by encouraging students to independently search for and select their own relevant source materials. The Writing Task in this study were given to the students in Meeting 1 after the students received demonstration on QuillBot's features, and the result were Revised Draft. And in Meeting 2, where students got a new topic or prompt for making analytical exposition from the beginning of the writing process (Pre-writing to Publishing), in which the result were Independent Writing Draft. The two writing tasks in this study were validated by two expert validators: (1) The classroom English teacher and (2) The researcher's academic supervisor.

Table 2. The Writing Tasks

| Name | Meeting | Description of the tasks | Result |
|----------------|----------------|---|---------------|
| Writing Task 1 | Meeting 1 | After receiving instruction on QuillBot, students revised and edited their first draft using QuillBot features and wrote their Revised draft. | Revised Draft |

| | | | |
|--|-----------|---|---------------------------|
| Writing Task 2 | Meeting 2 | Students wrote a new Analytical Exposition Text on a different topic, | Independent Writing Draft |
| independently applying what they had learned in the Intervention. No external support from the teacher or researcher was provided during this session. | | | |

Afterward, to support systematic documentation during the action phase, the researcher designed an observation sheet employing Photographic observation. This method was used to capture classroom activities throughout the implementation of the lesson plan, as recommended by Basil (2011) to capture classroom moments throughout the lesson plan. In this study, the Photographic Observation consisted of several components:

Table 3. Components of Photographic Observation

| Components | Date/Time | Activity Observation | Notes | Picture Proof |
|--------------------|---|---|---|---|
| Description | Ensure a clear and accurate documentation timeline. | Focused on identifying and showed which part of the activity in the lesson plan were observed. This section helped the researcher observe the classroom activities in a more organized way. | Used to record the researcher's observation in written form. The researcher wrote descriptive paragraphs describing what happened in the classroom, including students' response, behavior, and difficulties during the learning process. | Contained the photographs taken in a real time. Served as visual support for the Notes and helped document real classroom situations. |

After all the planning activities were completed and all the research instruments were finalized, the Action phase began. In this phase, the researcher implemented the Intervention-based Lesson Plan and administered the Writing Tasks. The main goal was to apply the designed activities in the real classroom setting, including the use of QuillBot as part of instructional teaching and the writing process. The researcher facilitated each meeting and ensured the students

followed the instruction, actively engaged, and received guidance when necessary.

During this phase, two sets of students writing drafts were collected to represent their progress during, and after the QuillBot Intervention: 1) The Revised Draft, in which a students' continuation to the First Draft. In these drafts, students revise the First draft and produced Revised Draft using QuillBot-assisted intervention. Students were guided to improve their analytical exposition by utilizing QuillBot features that already demonstrated by the teacher in the intervention of QuillBot. and 2) Independent Writing Draft, which students wrote their new analytical draft as a post-test after the Intervention are completed, and the students were encouraged to only use QuillBot individually without the teacher or researcher's assistance. In these drafts, the students were required to write a new analytical exposition based on different topic from the previous draft, which is **“What do you think about the increasing use of Artificial Intelligence (AI) in everyday social life? Do you think it's helping or harming our society?”**

After all the two sets of writing drafts were collected, each draft was checked using Turnitin solely by the researcher to obtain the Similarity Percentages of each writing stages. These Similarity Percentages served as the main Quantitative data of the study and were used to evaluate changes in students' plagiarism levels across the writing process. The similarity percentage data were later analyzed and interpreted in the Reflection phase to determine the impacts of the QuillBot intervention in reducing students' plagiarism. The data consisted of: 1). Similarity Percentages of the Revised Draft, during the intervention. 2). Similarity Percentages of Independent Writing Draft, after the intervention completed.

In the meantime, the Observation phase was conducted alongside the Action phase. During this phase, the researcher documented all classroom activities throughout the implementation of the Intervention-based Lesson plan. This included observing students' engagement, participation, and taking notes of challenges or problems during the learning process, especially during the stages when students used QuillBot to revise their drafts. To support the observation, the researcher employed Photographic Observation that had been prepared in Planning phase. As recommended by Basil (2011), this Photographic Observation was used to capture classroom moments throughout the lesson plan. This tool served as a supporting instrument, and functioned as visual data that provided contextual evidence of student behavior and classroom dynamics. The use of photographic documentation enhanced the accuracy of post-lesson reflection and ensured transparency in reporting students' involvement during the intervention. The combination of observational notes and photographic documentation was expected to provide a richer and more comprehensive understanding of how students interacted with the materials, tools, and tasks during the lesson.

Reflection phase began and the researcher reviewed and evaluated all data collected during the Action and Observation phases to determine whether the objectives of the cycle had been achieved. The reflection phase focused on

assessing students' similarity levels in writing based on predetermined evaluation criteria, namely the individual passing grade criterion and classical passing grade criterion. The primary data considered in this phase were students' similarity percentages obtained from two sets of writing drafts: the Revised Draft, and the Independent Writing Draft. These similarity percentages were generated using Turnitin during the Action phase and were analyzed descriptively by categorizing the individual passing grade criterion, in which based on a similarity percentage below 25%. And a classical passing grade of 70% that adopted from the school's minimum mastery standard (KKM). The purpose of this analysis was to provide an overall description of changes in students' similarity levels across the stages of the writing process. Moreover, Photographic Observation were used as supporting evidence to provide contextual information in a form of picture and description about students' engagements, participation, and behaviors. These observational data were not analyzed statistically, but only used for support and clarify the Quantitative findings by illustrating how students interacted with the Intervention and followed the Instructional procedures. Based on the comparison between the similarity percentage results and the established evaluation criteria, the researcher reflected on whether the cycle had met the expected outcomes. This reflection was used to determine whether revisions to the instructional plan were necessary or whether the Classroom Action Research could be concluded without proceeding to an additional cycle.

FINDINGS

Findings on the Preliminary Observation

The preliminary observation was conducted to identify the students' initial plagiarism percentages before the implementation of the QuillBot intervention. The data were obtained from First Draft, and these drafts were checked using Turnitin to obtain the similarity percentages as the main data of this study. Afterwards these similarity data were analyzed using an individual passing grade criterion that was set at similarity percentages below 25%, in which categorized as acceptable.

Table 4. The Students' Similarity Percentages Viewed from the Individual Passing Grade in the Preliminary Observation

| Similarity Percentages Threshold | Category | Number of Students | Percentage |
|----------------------------------|--------------|--------------------|-------------|
| >25% | Unacceptable | 30 | 85.70% |
| <25% | Acceptable | 5 | 14.30% |
| Total | | 35 | 100% |

Table 5 shows that out of 35 students, only 5 students (14.30%) obtained similarity percentages below 25% and were categorized as acceptable, meaning that only 5 students met the individual passing grade criterion. Meanwhile, the majority

of the students, 30 students (85.70%), recorded similarity percentages above 25% and were categorized as unacceptable, in which they did not meet the individual passing grade criterion. Furthermore, to determine whether the class had achieved the expected learning outcome collectively, the results were further analyzed using classical passing grade criterion of 70%, which required at least 70% of the students in classroom to achieve similarity percentages below 25%.

Table 5. The Students' Similarity Percentages Viewed from the Classical Passing Grade in the Preliminary Observation

| Similarity Percentages Threshold | Criteria | Frequency of Students | Percentage |
|--|------------|-----------------------|-----------------------------------|
| <25% | Acceptable | 5 | 14.30% |
| Classical Passing Grade Criterion Achievement | | | 70% Not Achieved |

As presented in Table 6, only 14.30% of the total students achieved similarity percentages below 25%, indicating that the classical passing grade criterion of 70% had not yet been achieved at this stage. These findings demonstrated that plagiarism remained a prominent issue in the students' analytical exposition writing at the beginning of the study. In addition to the analysis, a classroom observation was conducted during the preliminary observation to gain insight into students' writing practice and the engagement during the First Draft activity.



Picture 1. Students caught doing copy-paste from the internet

From the classroom observation, it revealed that student searched information from online sources and were observed directly transferring sentences from the sources into their writing with minimal modification while completing their First Draft activity. This behavior indicated that students relied heavily on copying information from online texts or sources rather than expressing their own ideas.

This finding was also supported by the results of an informal interview with the English teacher of class XI-I. The teacher explained that the writing instruction implemented before the research primarily emphasized the text

structure and language features of analytical exposition texts. The teacher also stated that explicit instruction related to paraphrasing skills and plagiarism awareness had not yet been introduced. Furthermore, the teacher mentioned that students had not previously been introduced to digital tools designed to support ethical writing practices. As a result, students tended to copy information directly from online sources without sufficiently paraphrasing the ideas in their own words, in which explain the high similarity percentages in their First Draft.

Findings on The Cycle 1

In the Cycle 1 of the Classroom Action Research (CAR) study, after the Planning Phase, the researcher conducted the intervention-based lesson plan and the writing tasks with the teacher. At this stage, two classroom meetings were conducted in the teaching of analytical exposition writing. The instructional intervention using the QuillBot application was implemented to address the plagiarism issues identified in the preliminary observation findings. The findings of Cycle I were derived from two sets of the students' writing drafts, including; **The Revised Draft**, in which a students' continuation to the First Draft, and **The Independent Writing Draft** was written by the students after the QuillBot intervention had been completed, without any guidance from teacher or researcher.

The similarity percentages data of those drafts were interpreted using the same individual passing grade criterion that was set at similarity percentages below 25%, and a classical passing grade criterion of 70% to describe the students' plagiarism levels and determine whether the expected learning outcomes of the cycle had been achieved.

a. Similarity Percentages of the Revised Draft

The purpose of analyzing the Revised draft was to identify changes in the students' similarity percentages after revising their writing using QuillBot.

Table 6. The Students' Similarity Percentages Viewed from the Individual Passing Grade in the Revised Draft

| Similarity Percentages Threshold | Category | Number of Students | Percentage |
|---|-----------------|---------------------------|-------------------|
| <25% | Acceptable | 35 | 100% |
| >25% | Unacceptable | 0 | 0% |
| Total | | 35 | 100% |

Table 7 shows that all 35 the students (100%) obtained similarity percentages below 25% and were categorized as acceptable, meaning that they met the individual passing grade criterion. No students recorded similarity percentages in the range of 26-80% or 81-100%, as found in the First draft. These results indicated a substantial change in the students' similarity percentages in the Revised draft during Cycle I. The findings also demonstrated a clear contrast when compared to the First draft, in which the majority of the students recorded similarity percentages above the acceptable plagiarism threshold.

Table 7. The Students' Percentages Viewed from the Classical Passing Grade in the Revised draft

| Similarity Percentages Threshold | Criteria | Frequency of students | Percentage |
|---|------------|-----------------------|-------------------------------|
| <25% | Acceptable | 35 | 100% |
| Classical Completeness (Passing Grade) Achievement | | | 70% Achieved |

Furthermore, as seen in Table 8, the students' similarity percentages data were further analyzed using a classical passing grade criterion of 70%. The results showed that all the students (100%) achieved similarity percentages below 25%. This result indicated that the classical passing grade had been achieved in the Revised draft of cycle I.

b. Similarity Percentages of the Independent Writing Draft

The purpose of analyzing the independent writing draft was to determine whether the students were able to independently apply the skills learned during the intervention, serving a post-test to evaluate the long-term impact of the QuillBot intervention.

Table 8. The Students' Similarity Percentages Viewed from the Individual Passing Grade in the Independent Writing Draft

| Similarity Percentages Threshold | Category | Number of Students | Percentage |
|----------------------------------|--------------|--------------------|-------------|
| <25% | Acceptable | 35 | 100% |
| >25% | Unacceptable | 0 | 0% |
| Total | | 35 | 100% |

Table 9 shows that all 35 students (100%) obtained similarity percentages below 25% and were categorized as acceptable, meaning that they met the individual passing grade criterion. No students recorded similarity percentages in the range 26-100%. These results indicated that the students were able to maintain low similarity percentages even without teacher guidance and writing on different topics.

Table 9. The Students' Percentages Viewed from the Classical Passing Grade in the Independent writing draft

| Similarity Percentages Threshold | Criteria | Frequency of students | Percentage |
|--|------------|-----------------------|------------|
| <25% | Acceptable | 35 | 100% |
| Classical Passing Grade Criterion | | | 70% |

Achievement
Achieved

In addition, as presented in table 10, the results showed that all 35 students (100%) achieved similarity percentages below 25%. This finding indicated that the classical passing grade criterion of 70% had been achieved in the independent writing draft of Cycle I, suggesting that the whole students in the classroom had successfully internalized the skills learned during the QuillBot intervention and were able to apply them independently, even with a different topic of analytical exposition text.

Findings on the Observation Phase

Photographic Observation was used as the instrument in this phase, consisting of field notes and pictures. Classroom observations were also conducted during Cycle I to support the quantitative findings in this study. These observations conducted in Meeting 1 and Meeting 2, focused on students' writing behavior during the Revised draft writing process, their use of the QuillBot application, and their level of independence during the independent writing draft, which functioned as the post-test.

In meeting 1, students actively engaged with the QuillBot after the demonstrated of it features. Students were observed checked their plagiarism levels, comparing multiple paraphrased output, revising sentences, taking notes to check their grammar before finalizing their work. Photographic observation showed positive students' engagement during this stage. During this stage, the researcher also conducted informal interviews with several students. Some students reported that their writing was detected AI-generated while others realized their draft contained high similarity percentages after checked using plagiarism checker on QuillBot. Meanwhile several students expressed satisfaction after using the Paraphraser and Grammar Checker features that helped them revise their sentences and improve clarity.



Picture 2. Students Using Paraphraser and Plagiarism Checker

In meeting 2, the Photographic Observation focused on students' behavior during the independent writing draft, which was conducted without direct teacher or researcher assistance. This stage aimed to examine whether students could maintain lower similarity levels independently after the intervention. During this session, the students remained attentive and focused

while completing their writing tasks. They were able to use QuillBot independently and demonstrated careful consideration when revising their work. Some students even requested additional time to complete their drafts, indicating increased awareness of writing quality and plagiarism management. These observations supported the Quantitative findings, which showed that students consistently produced independent writing draft with low similarity percentages, even when writing on different topics.

Reflection of The Cycle 1

Based on the findings obtained in Preliminary Observation and Cycle 1, the implementation of the QuillBot application successfully contribute to the reduction of the students' similarity percentages in analytical exposition writing.

In the First Draft stage, most students still demonstrated high similarity percentages and had not yet met the individual and classical passing grade criteria, indicating that plagiarism remained a significant issue. After the instructional intervention, the Revised Draft showed considerable improvement, as all students achieved similarity percentages below the acceptable threshold of 25%, and 100% of the class met the classical passing grade criterion. Furthermore, the Independent Writing Draft demonstrated that students were able to maintain low similarity percentages while using QuillBot independently without teacher assistance. These results suggest that the intervention not only reduced plagiarism during the guided revision stage but also supported students in developing sustained awareness of paraphrasing and ethical writing practices. Considering that both the individual and the classical passing grade criteria had been achieved in Cycle I, no further cycle was conducted. Therefore, Cycle I was concluded as the final cycle of this CAR study.

DISCUSSION

This section discussed the findings of the study by interpreting the result obtained from the preliminary observation and Cycle 1 of the classroom action research. The discussion explains students' plagiarism levels before the implementation of the QuillBot intervention and examines how the use of QuillBot contributed to reducing plagiarism in students' analytical exposition writing. The findings were also related to relevant theories and previous studies to provide a deeper understanding of the role of QuillBot as an instructional tool in the writing process.

The results of this study indicate that the integration of QuillBot in writing instruction contributed to a significant reduction in students' similarity percentages. The preliminary observation revealed that most students recorded similarity percentages above the acceptable threshold when their drafts were checked using Turnitin. At this stage, only 5 students (14.30%) achieved similarity percentages below the acceptable threshold of 25%, indicating that the classical passing grade criterion of 70% had not yet been achieved. Informal interviews with the English teacher revealed that previous writing instruction

mainly emphasized text structure and language features, while explicit instruction on paraphrasing strategies had not been implemented. Classroom observations also showed that many students copied information directly from internet sources when composing their drafts. These findings suggest that students' plagiarism behavior was largely influenced by their limited knowledge of paraphrasing strategies and plagiarism avoidance in academic writing. After the instructional intervention was implemented, considerable improvement was observed in students' writing. All students (100%) achieved similarity percentages below the acceptable threshold of 25% in their revised drafts, indicating that both the individual and classical passing grade criteria had been achieved. Furthermore, the results of the independent writing draft demonstrated that students were able to maintain low similarity percentages while using QuillBot independently without teacher guidance and while writing on a different topic. This finding suggests that the intervention not only reduced plagiarism during the guided revision stage but also supported students in developing more responsible and independent writing practices.

These results can be understood in relation to the complex nature of writing as a cognitive and demanding process. Writing requires students to organize ideas, construct logical arguments, and apply appropriate grammatical structures (Gabrielatos, 2002). Arta et al. (2019) also argue that transforming ideas into coherent written form requires considerable cognitive effort. In the context of analytical exposition texts, this complexity becomes more evident because students must present logical arguments supported by credible sources (Hermayanti & Gunawan, 2024). Due to these challenges, students may rely on copying information from external sources rather than expressing ideas in their own words, which explains the high similarity percentages observed during the preliminary stage of this study. The plagiarism issue identified in this study is also consistent with previous research findings. Reski et al. (2021) reported that plagiarism frequently occurs in analytical exposition writing when students lack adequate paraphrasing skills. Similarly, several studies have found that students experience difficulties in organizing ideas, constructing arguments, and producing coherent analytical exposition texts (Ariani, 2023; Elfa, 2020; Kemala et al., 2020; Kulsum & Khodijah, 2025; Pramono, 2019). These difficulties often lead students to rely on copying information from online sources rather than expressing ideas independently. Therefore, explicit instructional support is necessary to help students develop paraphrasing skills and awareness of plagiarism.

The improvement observed in this study suggests that QuillBot functioned as an effective instructional support tool when integrated into structured writing instruction. Through guided activities, students were encouraged to evaluate paraphrased outputs, revise their sentences systematically, and develop greater awareness of originality in academic writing. As emphasized by (Asvini et al., 2020), the implementation of supportive instructional strategies plays an important role in improving students' writing practices. Similarly,

Suputra (2020) states that effective instructional strategies significantly influence the quality of language learning. In this study, QuillBot was used not as a shortcut for writing but as a guided tool that supported students in revising and refining their drafts. Furthermore, this study extends the instructional model proposed by Anggraini et al. (2025) by integrating a broader range of QuillBot features rather than focusing solely on paraphrasing. In addition to the Paraphraser feature, this study incorporated the Translator, Grammar Checker, Citation Generator, and AI Detector features. This broader implementation positioned QuillBot as a comprehensive writing support tool rather than a replacement for students' writing. Students were guided to critically evaluate AI-generated outputs and revise their drafts, which promoted reflective and independent writing practices.

The findings of this study also offered important implications for classroom practice. The reduction in plagiarism showed that AI-assisted tools could be effectively integrated into writing instruction when paired with clear guidance and structured support. The results highlighted the need for teachers to provide explicit instruction on paraphrasing and digital literacy, while also helping students use AI tools responsibly. Overall, the study suggested that guided AI use can promote originality and support more independent writing practices in EFL classrooms.

Overall, the findings demonstrate that the structured integration of QuillBot in writing instruction can effectively reduce plagiarism and improve students' awareness of originality in academic writing. The results also suggest that AI-assisted tools, when implemented through guided instructional strategies, can support students in developing more responsible and independent writing practices in EFL classrooms.

CONCLUSIONS

This study investigated the impact of integrating QuillBot in reducing plagiarism in students' analytical exposition text writing through a classroom action research design. The findings in First Draft revealed that most students initially demonstrated high similarity percentages due to limited paraphrasing skills and a tendency to copy information directly from online sources. After the implementation of the QuillBot-based instructional intervention, the Revised draft showed that all students were able to reduce their similarity percentages below the acceptable threshold. Furthermore, the Independent Writing Draft showed that students were able to maintain low similarity percentages while using QuillBot independently. These results indicate that the guided intervention of AI-assisted writing tools such as QuillBot can support students in developing paraphrasing skills, improving originality, and fostering more responsible academic writing practices in EFL classrooms.

Based on these findings, several suggestions can be proposed. For students, it is recommended to develop stronger awareness of plagiarism and practice paraphrasing skills while using digital writing tools such as QuillBot responsibly. For teachers, integrating guided use of digital writing tools in writing instruction may help students improve paraphrasing practices and plagiarism

awareness. For future researchers, further studies may explore the long-term impact of QuillBot in different writing genres or compare its effectiveness with traditional paraphrasing techniques or other digital writing tools.

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