

CHAPTER I

INTRODUCTION

Chapter I discusses the research background on the use of technology in English language learning, especially for writing skills. This section covers problem identification, research limitations, questions, objectives, significance, definition of key terms, and publication target.

1.1 Research Background

In the context of language learning, writing becomes a highly challenging language skill to acquire and develop (Kumayas & Lengkoan, 2023). Writing is a skill that facilitates and allows writers to communicate their ideas and thoughts in written form (Knoch et al., 2015; Perumal, 2020). This skill represents one's ability on how well they can articulate and convey ideas in the written language (Ratminingsih et al., 2018; Song & Song, 2023). In addition, writing is made up of various elements, such as theory, methodology, grammar, structure, and idea conceptualization (Maulidina & Wibowo, 2022). From those definitions, writing is defined as the capacity of an individual to produce a written product as a result of expressing their ideas, thoughts, opinions, and perspectives clearly in a language.

Furthermore, the intricate integration among psychological, sociocultural, and linguistic factors constitutes a significant challenge for non-native English learners in mastering writing skills (Pramerta et al., 2023; Santosa et al., 2024). Writing is a recursive and dynamic process that requires sustained effort and continuous practice. To develop proficiency, students must engage in consistent, independent writing activities (Maharani et al., 2023). Supporting this view, Rany et al. (2021) emphasized that effective writing involves four essential stages: prewriting, drafting, revising, and editing. Taken together, these perspectives conceptualize writing as a multifaceted skill that encompasses complex cognitive processes and demands attention to multiple components simultaneously.

In the Indonesian education context, writing skills continue to pose a considerable challenge for students. According to Suryani et al. (2023), only 35% of high school students meet the national standards for writing competence, with the majority facing difficulties related to grammatical accuracy and the organization of ideas. The core issue lies in students' limited English proficiency, which is further compounded by challenges in argumentative writing, grammatical structure, tense usage, insufficient reference sources, and weak coherence in idea development (Maharani & Santosa, 2021; Santosa et al., 2024). Within EFL classrooms, students frequently encounter obstacles in articulating their thoughts in writing due to persistent grammatical errors (Asnas & Hidayanti, 2024; Budjalemba & Listyani, 2020; Pratama, 2020; Fauzani et al., 2018). Grammar is often perceived as complex and intimidating, which leads many students to become reluctant writers when they feel inadequately equipped with grammatical competence (Purnamika Utami & Mahardika, 2023; Yuliawati, 2021). Collectively, these findings highlight how limited language proficiency and grammatical difficulties impede students' ability to meet writing standards and confidently express their ideas in English.

Likewise, Prasetyo (2022) discovered that many students depend heavily on direct translation from their native language, which often results in unnatural phrasing and a lack of coherence in their writing. Furthermore, there is a growing tendency among students to replace original writing with copied material, leading to increased instances of plagiarism (Rustan & Thaha, 2023; Clarin & Baluyos, 2022; Rodhiya & Hermilia, 2020). According to Wager (2014), plagiarism is the act of using someone else's words, sentences, ideas, concepts, or artwork as our own without giving any proper credit. Clarin and Baluyos (2022) noted that students commonly copy and paste content from various sources rather than expressing their own ideas using original language. This issue is largely attributed to students' limited awareness of plagiarism, as well as their struggles with essential academic writing skills such as sourcing, paraphrasing, and referencing (Hu & Yu, 2023; Santosa et al., 2019). Plagiarism represents a serious breach of academic integrity, ultimately diminishing the intellectual merit and authenticity of students' written work.

According to Bretag (2018), academic integrity relates to the moral and ethical principles that control academic behavior and activity within educational settings. Academic integrity also connects with ethical decision-making and behavior in producing valid, real, and honest scholarly work. In addition, the International Center for Academic Integrity (ICAI) defines academic integrity as a dedication to six fundamental values, including honesty, trust, fairness, respect, responsibility, and courage (ICAI, 2018). By upholding these six fundamental values, academics can establish productive intellectual communities where integrity is highly respected. In addition, academic' work is worthless and untrustworthy without realizing the values of academic integrity. Fundamental values help to guide and enhance moral decision-making capabilities and behavior. They facilitate the conversion of ideas into action for academic communities.

In every academic work, integrity is crucial. Being honest in how you present your work is a sign of having academic integrity (Wilson, 2022). Academic integrity has two areas in the context of writing. First is the ethical aspect which means the originality of the work. Your writing is unique because you wrote it yourself, without assistance from someone else, and without stealing it from the internet. The second area is the technical aspects of academic integrity which require the writer to use and cite the sources properly. When working with other people's work, the writing appropriately identifies sources and displays data. Truly, the technical aspects are more challenging than the ethical aspects. Failing to accurately cite other's people work or ideas might occur due to a lack of technical skill and insufficient time to finish the work. This issue might happen even if the writer has no willful effort to deceive and it is also feasible for plagiarism to happen.

Beyond grammatical challenges and issues related to academic integrity, the effectiveness of writing instruction also plays a crucial role in shaping students' writing development. Research indicates that 70% of Indonesian high school students perceive writing lessons as monotonous, with minimal opportunities for interactive engagement (Farahsani & Rini, 2023; Amyatun & Kholis, 2023). This perception is often associated with the extent to which teachers effectively apply instructional strategies within classroom activities (Rashid et al., 2022). To enhance

student understanding, teachers need to adopt appropriate and responsive teaching strategies (Santosa et al., 2023). However, writing instruction is frequently delivered using teacher-centered methods that limit students' participation and discourage idea generation (Febriani et al., 2023). Although the national curriculum promotes student-centered learning, traditional instructional practices remain prevalent in many classrooms (Retnaningrum et al., 2023). As a result, students often lose interest in writing activities, particularly when exposed to conventional teaching methods that fail to stimulate creativity or motivation (Solhi et al., 2024). These findings suggest that ineffective instructional strategies contribute to students' disengagement and lack of enthusiasm for writing.

As previously discussed, students encounter various challenges in writing including grammatical errors, violations of academic integrity, and ineffective instructional strategies. To address these issues, an innovative solution is required. Prior research has shown that integrating technology into language classroom can significantly enhance students' potential and improve their language proficiency. As a defining element of 21st-century education, technology is regarded not only as a necessity but also an opportunity to improve the quality of global education (Santosa, 2022; Merta et al., 2023). Studies by Akbarani (2024) and Ginting et al. (2023) demonstrate that the integration of Artificial Intelligence (AI) in language learning has a significant impact by offering automated feedback, correcting errors, and suggesting contextually appropriate vocabulary. AI is recognized as a powerful tool in English language teaching, capable of enriching both the learning process and the overall learning experience (Asmara & Kastuhandani, 2024; Syahnaz & Fithriani, 2023). Moreover, Enzelina et al. (2023) emphasize the need for educational environments to equip students with AI literacy, as this technology has become a central focus in educational policy, particularly within the field of English Language Teaching (ELT). By offering personalized instruction, immediate feedback, and immersive language practice, AI has the potential to transform the English language learning experience.

QuillBot is one of the great artificial intelligences that is very useful for assisting and improving students' writing skills (Fitria, 2021; Kurniati & Fithriani,

2022; Mohammad et al., 2024; Nurmayanti & Suryadi, 2023). The QuillBot offers features including grammar checking, sentence paraphrasing, plagiarism checking, summarizing long text sections, translating, and citation generating. It is a free online tool that may be used to improve written content's professionalism and clarity by rewriting words and phrases, identifying and preventing plagiarism, and compressing lengthy text portions (Nurmayanti & Suryadi, 2023). In addition, one of the QuillBot's biggest advantages over other translation and grammar-checking apps is the comprehensiveness of the features all packaged into one AI (Amanda et al., 2023; Syahnaz & Fithriani, 2023).

Some studies revealed the effectiveness of QuillBot in improving students' writing skills (Asmara & Kastuhandani, 2024; Fitria, 2021; Kurniati & Fithriani, 2022; Nurmayanti & Suryadi, 2023). Further, Chui (2022) pointed out that students produce better writing when they use QuillBot in the production process. Furthermore, through the reuse of grammar and other sources, QuillBot successfully prevents plagiarism (Latifah et al., 2024). In addition, students can utilize this AI to boost their confidence when faced with challenging homework (Nurmayati & Suryadi, 2023). QuillBot allows students to avoid plagiarism by paraphrasing content, producing more organized text, and avoiding the need to start from scratch or copy and paste from other people's work. Furthermore, Kurniati and Fithriani (2022) also agreed that time and effort are well spent using QuillBot since it can help students write better. QuillBot helps students write more effectively by suggesting better words and restructuring sentences to make them more grammatically correct. Those previous studies indicate that implementing QuillBot is very beneficial to enhance student's writing skills in terms of producing better writing with great grammatical, structure, and mechanics, as well as avoiding plagiarism.

The previous studies were conducted to find how well QuillBot in improving students' ability in writing. Briefly, some researchers suggest implementing the Quillbot in the EFL subject to support the teaching and learning process, especially for writing class. Those previous studies suggest doing further research on the different aspects of the use of the QuillBot. Additionally, Asmara

and Kastuhandani (2024), Kurniati and Fithriani (2022), and Marzuki et al. (2023) noticed that there is a possibility that students will get too dependent on using the Quillbot which probably have an impact on the student's academic integrity. This issue needs to be investigated further to determine the impact of using QuillBot on student's academic integrity. Furthermore, some studies of QuillBot are mostly conducted on undergraduate students' writing skills, and there are also limited studies that explore its use for high school students' level.

Therefore, to fill the gap in those related studies, this current study will examine the effect of using QuillBot in more specific aspects of writing skills and investigate students' academic integrity after using QuillBot. In this case, the QuillBot will be used as a tool to stimulate students' ideas in producing writing because this AI offers seven features that will help them in the writing process. Students are not allowed to copy and paste sentences that they got in the paraphraser features; they need to use their own words and use the QuillBot to stimulate their minds. In addition, the previous studies have mostly been explored qualitatively by investigating perceptions on using Quillbot or conducting a literary review. This current study will be quantitative research using a different research design, a different sample and setting, and a different type of data analysis. Thus, this study is entitled "The Effect of QuillBot Towards the Eleventh-Grade Students' Writing Skills and Academic Integrity."

1.2 Problem Identification

From the research background, it can be identified as follows:

- 1.2.1 Writing is a language skill that is still difficult to master and challenging in its implementation.
- 1.2.2 Students may face problems in the writing process due to grammatical, mechanical, and technical errors.
- 1.2.3 Writing has been replaced by the practice of copying and pasting other people's works, which leads to acts of academic integrity violation.
- 1.2.4 The integration of technology in language learning still needs to be implemented in Indonesian language learning.

- 1.2.5 Preliminary studies found that using Artificial Intelligence is highly recommended to enhance students' language skills, especially for writing skills.

1.3 Research Limitation

This research is limited to investigating the effect of using QuillBot on eleventh-grade students' writing skills and academic integrity.

1.4 Research Questions

Based on the research background and problem identification stated before, this research has three research questions as follows:

- 1.4.1 Is there any simultaneous significant effect of the use of QuillBot on eleventh-grade students' writing skills and academic integrity at SMA Negeri 2 Singaraja?
- 1.4.2 Is there any significant effect of the use of QuillBot on eleventh-grade students' writing skills at SMA Negeri 2 Singaraja?
- 1.4.3 Is there any significant effect on the use of QuillBot for eleventh-grade students' academic integrity at SMA Negeri 2 Singaraja?
- 1.4.4 How do eleventh-grade students at SMA Negeri 2 Singaraja perceive the use of QuillBot in their writing skills and academic integrity?

1.5 Research Objectives

This research is conducted to:

- 1.5.1 Justify whether there is a simultaneous significant effect of the use of QuillBot on eleventh-grade students' writing skills and academic integrity at SMA Negeri 2 Singaraja.
- 1.5.2 Find whether there is a significant effect on the use of QuillBot for eleventh-grade students' writing skills at SMA Negeri 2 Singaraja.
- 1.5.3 Reveal whether there is a significant effect on the use of QuillBot for eleventh-grade students' academic integrity at SMA Negeri 2 Singaraja.

- 1.5.4 Explore eleventh-grade students' perceptions of QuillBot in their writing and academic integrity.

1.6 Research Significance

1.6.1 Theoretical Significance

This research contributes in the form of the theoretical concept of writing skills perceived from academic writing in the topic of analytical exposition and descriptive text. This research also gives knowledge about an Artificial Intelligence-based paraphrasing tool, namely QuillBot, which offers numerous beneficial features for improving students' writing quality as well as maintaining their integrity in producing written work. According to Trivette (2020), the beneficial tools of QuillBot are a paraphraser, grammar checker, AI detector, plagiarism checker, summarizer, translator, and citation generator. These features assist students in producing better writing assignments.

1.6.2 Practical Significance

1.6.2.1 Teachers

Teachers could use this artificial intelligence as an alternative learning tool in teaching writing and make the students more engaged in learning English as a foreign language.

1.6.2.1 Students

EFL students can learn writing in a new way and it also can help them to train their writing skills.

1.6.2.1 Other Researchers

Other researchers with the same interest could use this research as a reference for using artificial intelligence, especially QuillBot in English language teaching fields.

1.7 Definition of Key Terms

1.7.1 Conceptual Definition

a. Writing skills

According to Knoch et al. (2016), writing is a skill that helps writers communicate their ideas and thoughts in written form and allows them to write messages to facilitate mental exchange. Rany et al. (2021) emphasized that students must follow the four important stages to produce a successful writing, namely: pre-writing, drafting, revising, and editing. Not only the process but also some elements must be considered, namely content, organization, vocabulary, grammar, and mechanics (Pratiwi, 2016). Better writing can be produced if the writer can create the right and harmonious combination of them.

b. Academic Integrity

According to Bretag (2018), academic integrity relates to the moral and ethical principles that control academic behavior and activity within educational settings. To produce valid, real, and honest scholarly work, ethical decision-making and behavior rely on academic integrity. International Center for Academic Integrity (ICAI) defines academic integrity as a dedication to six fundamental values: honesty, trust, fairness, respect, responsibility, and courage (ICAI, 2018). These six fundamental values help to guide and enhance moral decision-making capabilities and behavior.

c. QuillBot

QuillBot is categorized as a Natural Language Processing (NLP) Artificial Intelligence, the branch of AI concerned with how computers and human language interact (Jaladara et al., 2023). The features in QuillBot support users in improving the quality of their writing through paraphrasing, summarizing, and grammar checking. As a result, this AI helps users improve their writing by offering better alternatives, fixing grammar, and making easy-to-understand writing work.

1.7.2 Operational Definition

a. Writing Skill

In this context, the criteria that will be used to evaluate the result of the student's writing are content, organization, vocabulary, grammar and mechanics, cohesion and coherence, fluency, and task completion. Furthermore, writing skills in this study refer to eleventh-grade students' results in writing tests. The test will be a pre-and post-test that will be developed based on the ATP and learning module of Kurikulum Merdeka.

b. Academic Integrity

Academic integrity in this context is the students' behavior to maintain the six fundamental values, namely honesty, trust, fairness, respect, responsibility, and courage during the production of writing. In this case, students' academic integrity will be investigated through questionnaires.

c. QuillBot

The AI chosen in this study is QuillBot. Quillbot is a natural language processing application that helps users write, summarize, and improve content. In this study, the premium version of QuillBot is used to ensure that students can access all of its features without limitations. In addition, QuillBot will be used as a tool to stimulate students' ideas in producing writing because this AI offers seven features that will help them in the writing process.

1.8 Publication Target

The writer wants to publish this study in the Undiksha Repository. Also, the mini-exact type of study manuscript will be published in a national journal with a minimum of Sinta 3 or an international journal with a focus on technology integration for language teaching.