CHAPTER I

INTRODUCTION

This chapter presents some points including research background, problem identification, research limitation, research questions, research objectives, and research significance.

1.1 Research Background

Writing is one of the productive skills that should be mastered by students when learning a language, including English. In developing writing skills, students are required to fulfill a set of writing criteria, known as the dimensions of writing (Toba et al., 2019). These dimensions are divided into five categories: content, organization, structure, vocabulary, and mechanics. Once the students are able to master all the writing dimensions, they can be considered competent users of English (Hidayati, 2018). Besides, being competent in writing will also help the students have better careers (Hidayati, 2018; Rao & Durga, 2018; Sanjaya et al., 2020). Writing is also one form of communication to deliver feelings and ideas in written form; thus, students need effective writing skills to meet their academic goals and workplace requirement (Rao & Durga, 2018).

Many researchers agree that writing plays a significant role for language students (Alkhalaf, 2020; Firdausah & Sari, 2020; Lu, 2021). However, many educational institutions in many countries found that EFL students have difficulties mastering all these dimensions of writing. Toba et al. (2019) reported that EFL

students had problems composing their essays in terms of content, organization, structure, vocabulary, and mechanics. They pointed out that the problems that happened in the writing dimensions were because of students' low motivation to engage in writing class which affected their focus on the lesson. Abhari and Salehi (2021) and Mahmood (2020) also found the same issues where the student had difficulties fulfilling the five dimensions of writing due to a particular teaching strategy applied by the teacher that leads to low motivation and anxiety while composing their writing. Nurkamto et al. (2022) pointed out that the problems faced by the students mostly happened in the organization aspect, especially in organizing written ideas. Besides, they also argued that the students' unstable motivation and time management lead to these problems. Meanwhile, Alharbi (2019) reported that the students typically had difficulties using mechanics in writing, including punctuation, spelling, grammar, topic sentences, and supporting sentences. An inappropriate teaching strategy used by the teachers was one reason causing these problems (Abhari & Salehi, 2021; Mahmood, 2020). In this case, inappropriate teaching strategy refers to the teaching strategy teachers apply that cannot improve students' ability during the teaching practices. Shortly, it means that the teachers failed to select an appropriate teaching strategy for achieving the goal of the learning. Thus, they had difficulties mastering all dimensions of writing.

Furthermore, another cause is some teachers still do not conduct the lesson based on the curriculum assigned by the Ministry of Education. According to Ratminingsih et al. (2018), the previous curriculum (K-13) requires the teachers to assign meaningful tasks for the students where they can use the knowledge and

skills they learn in real life. Besides, the newly issued curriculum (i.e., Merdeka curriculum) also highlighted constructivist learning where the learning focuses on student-centered and they have to construct their knowledge by creating the project either autonomously or collaboratively with their groups (Puspitasari & Setiawan, 2022). However, most teachers still conduct a controlled writing activity focused only on textbooks. As a result, the students' writing skills cannot be optimally improved as the teachers applied conventional teaching strategies whose learning focused on teacher-centered activity.

Lastly, the most frequent cause was because of the students' low motivation during the teaching and learning process which affects their scores. Alshenqeeti (2018) argues that the common factor the learners face is often demotivated to learn. This issue happens because when the learners do not desire to learn, they are unwilling to cooperate and participate in the learning process (Alshenqeeti, 2018; Putra, 2021). In this case, motivation refers to the learners' willingness to participate in class activities actively; there is a desire to complete a particular task (Zhou, 2012, as cited in Alshenqeeti, 2018). Thus, this learning desire subsequently will help learners enhance their language proficiency, particularly in their writing class. For that reason, an alternative teaching strategy needs to be analyzed for the sake of boosting students' motivation in their writing classes so that their writing outcomes would be optimally increased.

Regarding these issues, the use of technology nowadays becomes an alternative strategy teachers can apply during teaching practices. Concerning the urgency of technology in 21st-century learning, it is crucial to integrate ICT and

digital technology into every teaching strategy to optimize the quality of students'
learning. Abundant studies have been carried out related to technology integration
into certain strategy to increase students' writing ability. Alghamdi (2022)
investigated the effect of using Instagram in students' writing classes. It was found
that integrating Instagram into the students' writing classes resulted in positive in
which the students found that Instagram was enjoyable, particularly for those who
did not really like writing in English. The automatic proofreading and the comments
features of Instagram helped them in improving their writing skills, especially their
grammar and writing mechanics. A similar study was also conducted by Al-Wasy
(2020) to examine the effect of technology in writing classes. It was found that the
use of mobile phones and various applications helped to enhance students'
motivation, encourage them to generate more creative writing, and develop their
skills to generate ideas for their writing and correct their punctuation. The use of
Edmodo and Padlet as platforms to foster students' writing was also conducted
(Alsmari, 2019; Sehuddin et al., 2021). Alsmari (2019) found that Edmodo could
significantly affect students' paragraph organization and content, spelling and
punctuation, grammar, and sentence structure. On the other side, Sehuddin et al.
(2021) did an investigation to check the effect of Padlet which could also affect
students' writing abilities. The findings revealed that Padlet significantly influenced
students' writing abilities and foster their motivation and engagement during the
writing classes. Concerning these previous studies, it could be stated that
technology holds a vital role in the improvement of students' writing abilities,
particularly in increasing their motivation and engagement.

In line with the arguments that described the benefit of technology for students' writing, Wongdaeng and Hajihama (2018) explained that various technology could be integrated into certain teaching strategies to optimize the student's learning outcomes in writing class. They argued that Project-based learning, well-known as PjBL, nowadays should be integrated with technology to increase students' 21st-century skills, such as critical thinking, communication, collaboration, and digital literacy skills. This strategy has become the most commonly used strategy to develop students' writing skills (Rahmawati et al., 2020; Sa'diyah & Cahyono, 2019; Villalba, 2022). According to Apriliani and Listyani (2021), PjBL refers to a learning model that focuses on student-centered, student autonomy, collaborative learning, and learning through the project. Cintang et al. (2018) also define PjBL as a learning model that can enhance students' active roles and motivation since it introduces them to the concept of learning by doing. As the students' problems mostly happen due to low motivation; thus, PjBL is considered suitable for enhancing students' motivation and engagement during the writing process (Aghayani & Hajmohammadi, 2019). Furthermore, this strategy has been also considered the strategy that can provide students with meaningful tasks that can be useful in real life (Apriliani & Listyani, 2021; Somani & Rizvi, 2018).

Studies on implementing PjBL in writing classes have been widely argued. Several quasi-experimental studies that applied a pre-test and a post-test control groups have been carried out to investigate the effect of PjBL on the students' writing skills (Aghayani & Hajmohammadi, 2019; Alotaibi, 2020; Ismuwardani et al., 2019). The studies found that PjBL significantly affected the

students' writing ability. Moreover, it was found that PjBL could increase students' participation, creativity, and self-reliance. Other quasi-experimental studies were also conducted by Hanifah and Bharati (2019) and Sa'diyah and Cahyono (2019) related to the effect of technological tools in PjBL on the student's writing skills. Hanifah and Bharati (2019) compared Wattpad and blogs to increase students' writing skills. They found that Wattpad shared a slight positive effect compared to blogs in the writing class. Meanwhile, Sa'diyah and Cahyono (2019) implemented PjBL through blogging. It was found that blogging could significantly affect students' writing skills. On the other side, Manidaki and Zafiri (2021) also investigated the use of technology tools, namely blogs and Google Docs, in PjBL qualitatively. The study found that integrating blogs and Google Docs effectively increased the students' writing skills. Furthermore, Villalba (2022) also presented the effect of integrating blogging into PjBL to improve students' writing skills. It was found that technology integrated into this stategy could improve students' writing ability.

Based on those previous studies, it is concluded that PjBL could significantly improve students' writing skills. Similar to the use of technology in teaching practices, this strategy also could increase students' motivation as the students are given meaningful and challenging projects during the implementation (Aghayani & Hajmohammadi, 2019). For that reason, concerning the findings that showed positive effects on the use of technology and also project-based learning in students' writing classes, more recent studies related to technology integration into project-based learning are needed. Additionally, teaching EFL students differs from

several decades ago, especially regarding the technology used in language teaching. Nowadays, many technological innovations have been added to the English class to maximize the students' learning through various platforms that could stimulate students to be more creative and think critically (Eryansyah et al., 2019). It is undeniable that today's education urgently needs the role of ICT to maximize the quality of education. In a quasi-experimental study conducted by Hanifah and Bharati (2019), it was found that integrating Wattpad and Blogging into PjBL could significantly affect students' writing skills. In line with this study, Sa'diyah and Cahyono (2019) also conducted a quasi-experimental study and proved that the integration of various technologies, such as mobile phones and blogging also affected students' writing skills since they were interested in the writing activities.

Concerning the effect of technology integration into PjBL on students' better writing, therefore, the purpose of this study is to examine the effect of technology-assisted PjBL on students' writing skills and how this strategy affected students in terms of their writing dimensions (i.e., content, organization, vocabulary, grammar, and mechanics). Moreover, this study also investigates the students' perceptions of integrating technology into PjBL in writing class. Unlike the previous studies that focused only on examining the effect of PjBL through Quasi-experimental research and some did not involve technology in their practices, this study provides a deeper analysis of implementing PjBL with technology to improve students' writing abilities. This study employed a sequential explanatory mixed method design to provide a deeper analysis of this case. The study was conducted in a junior high school located in Gianyar, namely SMPN 1 Gianyar.

SMPN 1 Gianyar is a public school whose missions focus on the realization of the development of educational infrastructure facilities and innovative learning process development, this school organizes various learning media that involve technological tools in its practices. Thus, the students are allowed to use their smartphones or laptop to support their learning.

As this school focuses on the development of innovative learning processes, based on the preliminary observation, it was found that English teachers implemented PjBL to teach writing. This school also provides students with adequate technologies that can be used to support their learning. However, the teachers stated that they rarely utilize technology in learning even though adequate facilities have been provided. In this case, they only utilize LCD projectors when the students are asked to present a particular task. Therefore, considering the result of the preliminary observation, the analysis of technology integration into PjBL to teach writing was considered necessary to be conducted in SMPN 1 Gianyar. The use of various exciting technologies as learning tools during PjBL needs to be applied to examine their effect on students' writing and how the students' perceptions toward this technology-assisted PjBL during their writing classes.

Even though many theories such as CALL, Technology-based learning, and even framework like TPACK have emphasized that the technology aspect is always integrated within, however, the technology aspect was apparent in this current study since this study focused on examining the use of technology in each step of Project-based learning to support students' learning during their writing classes. Thus, the study specifically aimed to analyze whether or not the

technologies applied in each step of Project-based learning could affect students' writing abilities. Moreover, the distributed design was used in designing the technology-assisted PjBL in this current study. In this design, the learning involved pedagogical innovation, creativity, and more learning-centered that focused on students' psychology. In this case, the pedagogy aspect was innovated by the use of technology that could significantly affect students' psychology and their learning outcomes at the same time.

1.2 Problem Identification

Motivation is one of the crucial elements in the efficiency of a writing class. In this case, motivation influences the students' willingness to participate actively in class activities (Zhou, 2012, as cited in Alshenqeeti, 2018). However, the common factor the students face in most public schools in Indonesia is often demotivated to learn, especially in writing (Alshenqeeti, 2018; Haryanto et al., 2018; Listyani, 2022). As a consequence, Indonesian EFL students mostly have writing problems, such as difficulty generating writing ideas, developing their writing with appropriate supporting details, errors in writing mechanics, limited vocabulary, and being grammatically incorrect in their writing (Nurkamto et al., 2022; Toba et al., 2019).

Regarding this issue, some research found that Indonesian EFL students mostly have low motivation due to a lack of variation in teaching writing (Alshenqeeti, 2018; Hazaea & Alzubi, 2018; Suharsih & Wijayanti, 2021). In Papua for example, Romrome and Mbato (2023) found that the students only focused on

the textbook and were lack of writing practices which affected their limited vocabularies. As a result, the students were unconfident in their writing and felt unmotivated. The same case also occurred in Bali. Astawa et al. (2017) stated that Balinese students mostly work on the provided task given by the teacher. They stated that the phenomena nowadays indicate that students learn monotonously. Regarding some writing concepts, the teacher commonly teaches the students only by explaining and answering questions based on the textbook. Thus, it leads them unmotivated during the process and it will also affect their score. In line with this study, Pratiwi (2020) also did an investigation on Balinese students in which it was found that Balinese students were commonly unmotivated to participate due to a lack of opportunities to practice their writing. As a consequence, they could not improve their writing dimensions. As shown in the preliminary observation, this issue also occurred in SMPN 1 Gianyar, Bali as the current research setting. Most students felt weary of the monotonous learning process so they were not interested in the writing class. Thus, they have writing problems in some aspects, such as their writing punctuation, spelling, grammar, and even vocabulary.

Concerning students' demotivation in writing classes that affect their writing abilities, various technologies could be integrated into a certain strategy to increase students' motivation during writing classes so that their writing ability could be improved (Chen, 2019; Ho, 2020; Magen-Nagar & Shonfeld, 2018). PjBL has been considered one of the teaching strategies that could be challenging for students in 21st-century learning (Astawa et al., 2017; C. Yu et al., 2018). Integrating technology into this teaching strategy will be more beneficial as

technology can also increase students' motivation (Dollah et al., 2021; Nugroho & Rahmawati, 2020). Once the students' motivation is increased, they will perform better in their writing classes. Thus, the common writing problems in content, vocabulary, grammar, organization, and mechanics can be solved.

1.3 Research Limitation

The study was limited to analyzing the significant effect of implementing technology-assisted PjBL in eighth-grade writing classes of SMPN 1 Gianyar. Besides, this investigation also examined the students' perception of using technology-assisted PjBL in writing class.

1.4 Research Questions

Regarding the issues, this study is designed to address the following questions:

1.4.1. Is there any significant effect of technology-assisted PjBL on the writing ability of the eighth-grade students of SMPN 1 Gianyar in the academic year 2021/2022?

1.4.2. What is the perception of the eighth-grade students of SMPN 1 Gianyar in the academic year 2021/2022 on the technology-assisted PjBL strategy during writing class?

1.5 Research Objectives

Based on the research questions, the objectives are formulated as follows.

1.5.1. To investigate whether there is a significant effect of technology-assisted PjBL on the writing ability of the eighth-grade students of SMPN 1 Gianyar in the academic year 2021/2022.

1.5.2. To investigate the eighth-grade students' perception of technology-assisted PjBL strategy in writing class in SMPN 1 Gianyar.

1.6 Research Significances

1.6.1 Theoretical Significance

Theoretically, the result can enrich knowledge and information for education development, especially for integrating technology into PjBL in teaching writing.

1.6.2 Practical Significance

Practically, the result will provide information to the following readers:

a. For teachers, this study is expected to provide useful information for teachers in implementing an effective strategy by integrating technology into teaching, especially for writing classes.

b. For students, this study is expected to help students improve their writing ability.

c. For the researcher, this study is expected to be a consideration in conducting a similar focus study and further study on integrating various technologies into PjBL to improve students' writing ability.

1.7 Definition of Key Terms

Some key terms of the current study will be described in terms of conceptual and operational in the following explanations.

1.7.1   Writing Ability

a.   Conceptual Definition

Writing ability refers to students' ability in arranging their ideas into sentences and paragraphs, and cohesively and coherently connect each paragraph by following certain important aspects (Mustafa et al., 2017). Those aspects of writing which are also called writing dimensions are content, grammar, organization, vocabulary, and mechanics (Agan & Deniz, 2019). According to the Indonesian Curriculum, secondary school students are expected to have the ability to write various types of writing, such as descriptive, recount, spoof, anecdote, procedure, narrative, explanation, discussion, commentary, news, report, and review text (Mustafa et al., 2017). In this case, they are expected to be able to write these types of writing by considering the five dimensions of writing.

b.   Operational Definition

In the current study, writing ability refers to one of the language skills that students should possess in learning a language. This ability became the focus of the study. This study focused on the writing of Junior High School students, especially eighth-grade students. In this case, writing was not part of integrated skills and the students were asked to create a piece of writing about their daily activities which focused on the use of Simple Present Tense. The students' writings

were measured using a scoring rubric adopted from Brown (2007) that consists of five dimensions of writing *(see appendix 7)*. The dimensions are content (i.e., topic and details), organization, grammar, vocabulary, and mechanics (i.e., spelling, punctuation, and capitalization). Thus, these aspects were measured to determine the students' abilities during their writing classes.

1.7.2   Technology Integration

a.   Conceptual Definition

Technology integration refers to the teachers' technology experiences in which they use technology in their teaching practice (Farjon et al., 2019). In other words, technology integration is defined as the situation when teachers teach their core content with the aid of technology to support their teaching practice. Farjon et al. (2019) emphasize that technology integration is more than merging or adding technology into the existing teaching practice. However, this term refers to the considered use of technology to enhance teaching with appropriate technologies. In line with this definition, Ahmadi (2018) also adds that technology integration is defined as adding technology into the curriculum that aims to attach technology to teaching to support and improve the quality of the learning process.

Concerning the terms technology, technology can include smartphones, laptops, computers, the Internet, and many others. (Hashim, 2018). For that reason, Hashim (2018) classified the emerging technology that can be applied in education. Those classifications include Cloud Computing (e.g., Google, YouTube, Twitter, Instagram.), Mobile Technology (e.g., mobile phones, notebooks, iPod), Massive

Open Online Courses (MOOCs) platforms, Games and Gamification (e.g., Kahoot!, Quizzes, Socrative), Augmented Reality/AR (e.g., Pokémon GO), and Virtual Reality/VR.

b. Operational Definition

In the current study, technology integration refers to the way English teachers in SMPN 1 Gianyar use technology in the teaching of writing to support students' learning during their writing classes. All technology teachers applied to the classroom refers to technology integration. In this case, the technologies were LCD projectors, laptops, smartphones, a PowerPoint slide, various platforms (i.e., Mentimeter, Poll Everywhere, Google, Online Dictionaries, Padlet, and Instagram), and various editing apps (e.g., PicsArt and Snapseed). Thus, in this study, technology integration refers to all technology the teacher uses in implementing each step in PjBL during writing class to support the students' writing ability.

1.7.3   Project-Based Learning

a. Conceptual Definition

Project-Based Learning, well known as PjBL, is a learning model that focuses on a project that the students have to do individually or in groups (Sayuti et al., 2020). This learning model will focus on student-centered activity, learning autonomy, and collaborative learning since the students have to finish the project by planning, searching for information, and analyzing it by themselves (Tseng &

Yeh, 2019). As a result, the teachers are only responsible to monitor the student's progress while accomplishing their projects.

b. Operational Definition

PjBL consists of six steps in its implementation. In this current study, each step of PjBL was integrated with various technologies. First, both teachers and students determined the topic of the project through Mentimeter and Poll Everywhere. Second, the students started to plan their projects on Padlet. Third, the students collected data for the project by using Google and online dictionaries, while the teacher only monitored the student's progress. Fourth, the students started to create the project based on their draft on Instagram. Fifth, the students presented the project in front of the class with their phones right after finishing their writing. It was done to get feedback from the teacher and the others so that the project's outcome will be improved. Last, teachers and students evaluated the project by commenting on the others' posts on Instagram.

1.7.4   Conventional Teaching

a.   Conceptual Definition

Conventional teaching is a teaching strategy that focuses on a face to face teacher-centered learning (Anggraini et al., 2020). They further state that the teacher is responsible to give all information to the students during classroom practices as it focuses on teacher-centered learning. Conventional teaching is also defined as the learning process where the students learn only from their books and pictures given by their teacher (Dutta, 2010). In this case, the learning process is

typically text-oriented and the teacher only goes from one activity to another activity during the teaching and learning process.

b. Operational Definition

Conventional teaching refers to classroom activities that were typically done by the teacher. In this study, the teacher typically did not use technology in classroom practices. In the classroom practices, the teacher started the learning process by explaining the materials, focusing on the students' textbooks only, and most of the time lecturing the students. All learning activities were paper-based.