

CHAPTER I

INTRODUCTION

This chapter discusses the research background, problem identification, scope and limitation of the study, research questions, research objective, and the significance of the study.

1.1 Research Background

Education is an important factor in developing quality human resources. As time progresses, education has changed and improved, especially with the growth of technology. In today's digital era, integrating technology into education has become a necessity. Technology offers great opportunities to enhance educational quality by making learning more effective, efficient, and accessible to students. It also enables teachers to adapt their instructional approaches to students' varying abilities, needs, and preferences, which can create more individualized and meaningful learning experiences (Major & Francis, 2020). By using technological tools, teachers can create learning environments that encourage active participation, critical thinking, and better understanding, which ultimately improve students' learning outcomes and support continuous learning.

In the context of English as a Foreign Language (EFL) education, technology can create more interactive lessons and provide instant feedback, which helps students develop their language skills. However, while technology can greatly improve the learning process, teaching EFL in Indonesia presents additional challenges. Students come from different backgrounds and have different levels of

exposure to English, as well as varying levels of interest in learning English (Damayanti & Sadikin, 2023). These differences often result in learning gaps between students in the same classroom. For example, some students may already have strong listening and speaking skills due to exposure to English outside of school, while others may struggle with basic vocabulary and grammar. This diversity in readiness and skill level means that using a single teaching method for all students is less effective. Because of these challenges, teachers need to use teaching approaches that can adapt to students' different needs and abilities.

In addition to these linguistic challenges, Indonesia also faces technological barriers that affect the quality of learning. According to UNESCO (2023), unequal access to educational technology and digital learning resources remains a significant challenge in many developing countries. In Indonesia, although technology has been introduced in schools, its use is often limited to basic levels and has not yet been fully optimized in terms of pedagogy, school management, or learning environment (Nugraha et al., 2022). The main challenges include a lack of teacher preparation in effective technology use, lack of access to digital devices for students from disadvantaged backgrounds, and the persistent disparity between urban and rural schools in terms of internet access and digital tools. These ongoing challenges show the urgent need for solutions that can improve both the technological infrastructure of schools and the teaching approaches used in classrooms.

Responding to these problems, the Indonesian government has implemented several initiatives to improve educational quality. One of the most significant efforts is the implementation of the Kurikulum Merdeka as part of the Merdeka

Belajar program. This curriculum provides greater flexibility and encourages student-centered learning (Kemendikbudristek., 2021). The Kurikulum Merdeka also encourages technology use in education, allowing schools to adopt digital innovations and incorporate them into teaching and learning activities. Through this policy, schools are expected to provide learning experiences that respond to students' needs and reflect current developments in education.

One learning approach consistent with the Kurikulum Merdeka is differentiated instruction (DI). Tomlinson (2017) defines it as an approach that adapts content, process, and product to students' interests, readiness, and learning profiles. The content aspect refers to the subject matter or learning materials provided to students, which can be adjusted according to their readiness levels and prior knowledge. In English learning, teachers may vary the materials or use digital resources to support students' understanding. The process aspect relates to the methods and activities that help students engage with the material and develop their understanding, considering their learning styles. Teachers may apply various learning activities and flexible grouping to accommodate students' learning needs. The product aspect represents the final outcomes or performances that demonstrate what students have learned and understood during the instructional process. Teachers may allow students to present their learning outcomes in different formats considering their abilities and interests.

Integrating technology into differentiated instruction allows teachers to better address students' individual learning needs (Major & Francis, 2020). Heacox (2002) states that teachers can provide varied learning materials and activities based on students' readiness and individual preferences. Moreover, technology can

further enhance differentiated instruction by facilitating access to diverse learning resources and supporting flexible learning environments (Tomlinson, 2014). To facilitate the integration of technology into differentiated instruction, various digital platforms and tools have been developed and widely utilized in educational settings. Digital platforms enable teachers to provide learning materials in different formats, such as text, video, and audio, while also tracking each student's progress (Albiladi & Alshareef, 2019). In addition, interactive applications like Kahoot!, Quizizz, and Socrative offer engaging ways to assess student understanding by adjusting the difficulty of questions according to their abilities.

In the context of EFL, DI integrated with technology is particularly relevant because learning a language requires mastery of four key skills: reading, listening, writing, and speaking. Students' strengths and weaknesses in these skills often vary, making it important to provide learning activities that match their readiness and interests. For example, students who are more confident in speaking might be given opportunities to create video presentations, while those who need more practice in writing can work on structured grammar exercises using online tools. This flexibility can improve learning outcomes while also helping to keep students motivated and engaged.

In addition to these benefits, students' interest is an important psychological factor in the learning process. It helps learners maintain focus, motivation, and active participation during lessons. Hidi and Renninger (2006) describe interest as involving enjoyment, curiosity, and attention, which can encourage students to participate in learning activities. They also distinguish between two types of interest: situational interest and individual interest. Situational interest appears

temporarily because of external factors such as the use of technology, interactive materials, or enjoyable classroom activities. Meanwhile, individual interest develops gradually and becomes more stable when students personally enjoy and value the subject.

In EFL learning, students' interest is very important because many students often feel that English is difficult and lose motivation easily. When students show interest in a lesson, they tend to pay greater attention, participate actively, and practice their English more frequently, which helps them improve their skills and confidence (Dörnyei & Ushioda, 2011). On the other hand, when students are not interested, they become passive and less focused, which negatively affects their learning outcomes. Therefore, teachers need to create enjoyable, meaningful, and relevant learning experiences that connect to students' personal experiences to maintain their interest and engagement.

Differentiated instruction supports students' interest by providing students with opportunities to choose their learning activities, materials, and ways of demonstrating their understanding (Tomlinson, 2017). When integrated with technology, this approach can provide engaging and individualized learning environments that encourage students' situational interest and potentially support the development of individual interest (Chen et al., 2020; Warschauer & Meskill, 2000). Adapting instructions to students' needs can make learning activities more relevant and meaningful to them. Under these conditions, students may experience enjoyment, develop attraction to learning tasks, maintain better attention, and participate more during learning activities, reflecting key components of students' interest (Ainia, 2020; Hidi & Renninger, 2006). In this sense, students' interest can

be understood as a pedagogical response to how differentiated instruction integrated with technology is carried out in the classroom.

Considering the role of interest in EFL learning, this study examines students' interest during the implementation of DI integrated with technology as interest contributes to the learning process. Without interest, students may become passive, have difficulty understanding the material, and show low engagement in learning activities. Moreover, under the Kurikulum Merdeka, which promotes student-centered learning, understanding students' level of interest is highly relevant to determine whether the approaches used correspond to their needs and characteristics.

Previous research has examined how differentiated instruction and technology integration can improve learning outcomes (Kotob & Jbaili, 2020; Marlina et al., 2019), while other studies have investigated learners' interest in EFL learning (Ainia, 2020; Lestari, 2020; Tianjuan, 2019). As differentiated instruction integrated with technology is increasingly used in English classrooms, further research is important to provide more evidence about its implementation and students' interest in different educational contexts. Therefore, this study examines the implementation of DI integrated with technology and students' interest during its implementation at SMA Negeri 7 Denpasar.

A preliminary observation involving the English teacher at SMA Negeri 7 Denpasar revealed that the school has implemented differentiated instruction integrated with technology in English classes. This approach differentiates content, process, and product according to students' learning profiles, readiness, and interests. To support diverse learning preferences, the teacher uses various

materials, including videos, interactive slides, and online texts delivered through Google Classroom. During the learning process, students are grouped according to their readiness levels and assigned different tasks, for example, some work on grammar exercises using online quizzes, while others engage in project-based activities like creating digital posters or short videos. The products of learning are also varied, giving students different ways to demonstrate what they have learned through presentations, written assignments, or multimedia projects. This study focuses on tenth-grade students, as they are the first group to follow the Kurikulum Merdeka in English learning at the senior high school level, providing an opportunity to observe the early stages of its implementation. By examining students' interest in this context, teachers can identify the effective strategies for creating meaningful learning experiences that respond to students' needs and characteristics. The findings are expected to provide a reference for designing more adaptive teaching approaches that align with technological advancements and the characteristics of current students.

1.2 Problem Identification

Differentiated instruction has been implemented in English classrooms at SMA Negeri 7 Denpasar following the introduction of the Kurikulum Merdeka in Indonesia. This approach aims to address students' diverse learning needs, including differences in learning readiness, interest, and learning styles. However, differences in students' English proficiency and levels of interest still make the effective implementation of differentiated instruction challenging for teachers.

Earlier research has investigated differentiated instruction and technology integration in English learning, mainly focusing on students' academic

achievement, motivation, engagement, classroom practices, and students' interest (Ainia, 2020; Ginting et al., 2021; Johler & Krumsvik, 2022; Kurniawati & Huda, 2023; Sapan & Mede, 2022; Widayanti et al., 2024). Overall, these studies reported positive results concerning the use of DI and technology integration in English learning. However, differences in student characteristics, learning environments, and technological resources across schools highlight the need for further research. This study therefore examines the implementation of DI integrated with technology and students' interest in English learning at SMA Negeri 7 Denpasar.

1.3 Scope of the Research and Research Limitation

This research was conducted at SMA Negeri 7 Denpasar, a public senior high school located in Denpasar. The English teacher served as the main informant, as the researcher aimed to observe how differentiated instruction was carried out in English classes. The participants were tenth-grade students in their second semester, who had experienced differentiated instruction integrated with technology in the English learning process. The research involved three classes, namely X8, X9, and X10, which were selected on the research needs and the school's conditions.

1.4 Research Questions

Based on the research background presented above, the following research questions were formulated:

1. How does the teacher implement DI integrated with technology in tenth-grade English classes at SMA Negeri 7 Denpasar?

2. What is the level of students' interest in learning English during the implementation of DI integrated with technology in tenth-grade English classes at SMA Negeri 7 Denpasar?

1.5 Research Objectives

This study has two types of research objectives: a general objective and specific objectives, as presented below:

1. General Objective

This study aims to investigate the implementation of differentiated instruction integrated with technology and the level of students' interest in learning English during its implementation at SMA Negeri 7 Denpasar.

2. Specific Objectives

- a) To investigate the implementation of DI integrated with technology in tenth-grade English classes at SMA Negeri 7 Denpasar.
- b) To investigate the level of tenth-grade students' interest in learning English during the implementation of DI integrated with technology at SMA Negeri 7 Denpasar.

1.6 Research Significance

This study is expected to offer valuable insights for both theoretical and practical purposes. The following sections discuss these two aspects in detail.

1. Theoretical Significance

The findings of this study may contribute to the development of differentiated instruction theory by providing a theoretical understanding of how differentiated instruction integrated with technology involves the modification

of content, process, and product in English language teaching. These findings also provide insight into how the teaching approach relates to students' interest in learning, particularly in English Class. Furthermore, this study supports the theoretical foundation of using technology to meet diverse learning needs through differentiated instruction.

2. Practical Significance

In practical terms, the study may offer several benefits for those involved in the learning process, as discussed in the following sections.

a) For English Teachers

This study may help teachers better understand DI integrated with technology and apply strategies that meet students' needs. In addition, it demonstrates how digital tools can support engaging and student-centered learning experiences.

b) For Students

This study may help provide insights into students' interest in learning English through DI integrated with technology. It may also encourage students' motivation by using technology as an interactive and engaging learning tool.

c) For Future Researchers

The findings may serve as a reference for both theoretical and practical purposes. Theoretically, they contribute to understanding DI integrated with technology in English teaching. Practically, they may guide future researchers conducting similar studies in different contexts.