

CHAPTER I

INTRODUCTION

This chapter focuses on the research background, problem identification, limitation of the problem, research questions, purposes of the research, significance, and definition of critical terms. The research introduction is explained as follows.

1.1 Research Background

In recent years, there has been an increased expectation within the modern education system for teachers to actively assess and cater to the diverse learning styles of students in their classrooms, taking into account individual interests and requirements (Shenoy et al., 2013). This involves a deeper understanding of each student's preferred learning methods, enabling teachers to tailor their instructional approaches accordingly. Moreover, educators are encouraged to continually adapt and refine their teaching strategies based on students' evolving needs, readiness, preferences, and areas of interest (Norman, 2009). Adopting such a perspective empowers students to engage meaningfully with their learning journey by offering multiple pathways to meet specific learning objectives and goals, ultimately fostering enhanced learning outcomes (Sarabi-Asiabar et al., 2015).

The current academic curriculum in Indonesia, known as MBKM and introduced by the Indonesian Ministry of Education, Culture, Research, and Technology (Kemendikbudristek), comprises two key concepts: "Merdeka Belajar" and "Kampus Merdeka." These concepts aim to provide institutions and schools in Indonesia with the flexibility to tailor learning styles according to students' interests, needs, and abilities (Kusumo et al., 2022). In practice, this curriculum requires teachers to develop complex, flexible, and suitable learning models,

strategies, and methods that cater to the diverse needs of students in the classroom, thereby accommodating classroom diversity and enhancing education quality (Restu et al., 2022). As a result, the classroom learning process must be sensitive to the unique characteristics of students. Within the MBKM curriculum, educators are encouraged to utilize various learning models, such as inquiry-based, project-based, problem-based, and differentiated learning, positioning students at the center of the instructional method while teachers serve as facilitators identifying effective learning strategies to support students' individual learning needs (Novtian, 2023; Matra, 2014; Bahous et al., 2011).

Differentiated instruction is a key component of the MBKM curriculum, recommended by the Indonesian Ministry of Education and Culture to accommodate students with diverse learning styles. While not a new concept for most teachers, implementing this approach within the Merdeka Belajar Curriculum presents challenges (Novtian, 2023). The relationship between the MBKM curriculum and differentiated instruction is symbiotic, as both share a commitment to addressing students' diverse learning needs (Arrasyid, 2023). The Merdeka curriculum emphasizes student autonomy, flexibility, and technology integration, aligning with the core principles of differentiated instruction, which aims to tailor teaching methods to individual learning styles, interests, and readiness levels (Sholeh, 2022). In the context of MBKM, differentiated instruction serves as a strategic tool to achieve the curriculum's objectives by recognizing and responding to each learner's strengths and challenges, thereby creating an inclusive and

adaptive learning environment that empowers students to explore their interests and progress at their own pace (Arrasyid, 2023).

Despite increasing student diversity in the classroom in the last few years (Musu-Gillette et al., 2016), the teachers offer several learning strategies that might help students learn a language, specifically English. In this context, differentiated instruction has emerged as a crucial pedagogical approach to meet the unique learning needs of a varied student population. Differentiated instruction method can be an approach that could help teachers in facilitating and organizing students' diversity a compelling, complex, and flexible learning, hence fostering student variety in the learning process within the classroom and placing students at the core and center of the learning process within the school (Ortega et al., 2018).

Differentiated instruction is student-centered and aims to address inequities and variations among students due to their diverse abilities, skills, and learning preferences (Chamberlin & Powers, 2010). It offers students multiple learning pathways tailored to their individual needs, enabling them to comprehend materials in diverse ways, process concepts, and demonstrate their understanding (Tomlinson, 2001). By employing differentiated teaching methods, educators can foster successful learning experiences that accommodate students' diversity, promote independent learning, cater to their interests, and facilitate a deeper understanding of subjects (Morgan, 2017).

The implementation of differentiated instruction transforms differences in students' learning styles and paces into strengths, ensuring that each student receives personalized instruction aligned with their unique characteristics (Ismajli & Imami-Morina, 2018). This approach aims to engage students in meaningful

learning experiences (B & Hapsari, 2023) and requires teachers to actively address students' interests and learning needs. Educators must be knowledgeable and adaptable, understanding students' learning requirements to deliver appropriate instruction (Ginja & Chen, 2020). Teachers employing differentiated instructional methods should be prepared to utilize a variety of activities, identify students' interests and learning styles, and provide ample opportunities for independent learning to achieve learning objectives (Tomlinson, 2005). By implementing differentiated instruction, educators can depart from traditional teaching methods that prioritize centralized learning and instead focus on tailoring instruction to individual students' interests and abilities (Dosch & Zidon, 2014).

Implementing a differentiated approach to instruction has a significant impact on the development of educational materials, the learning process, and the outcomes within the educational system. As a result, teachers must differentiate instruction to accommodate students by adjusting the content, process, or products (Tomlinson, 2001). These three elements, according to Tomlinson, serve as key differentiators in the classroom learning process (Levy, 2008), necessitating modifications in educational processes concerning content, procedure, and product (Kupchyk & Litvinchuk, 2020).

Differentiated instruction typically involves three stages: adapting the learning content, adjusting the learning process, and modifying the product based on students' interests and learning profiles (Tomlinson, 2001). In a differentiated classroom, teachers employ various approaches to teaching content, learning processes, and student outcomes to accommodate differences in readiness, interests, and learning needs (Tomlinson, 2014). In the first stage, teachers differentiate the

content by determining what they will teach students and how they will achieve the same learning goals through varied instructional methods (Sebihi, 2016). The second stage requires teachers to differentiate the learning process to accommodate diverse student needs and preferences. Finally, teachers must determine the product, which reflects what students have learned. The product should be authentic and address real-world problems, facilitating student reflection on their learning experiences (Tomlinson, 2001).

To maximize differentiating instructions by implementing these elements, technology as an instrument can be used to better implementing differentiated instruction. Relationship between differentiated instruction and technology is one of symbiosis, where each complement and enhances the other to create a dynamic and effective learning environment. technology offers a plethora of tools, resources, and platforms that can facilitate differentiated instruction in innovative ways. Digital technologies enable educators to provide customized learning experiences through interactive multimedia content, adaptive learning software, virtual simulations, and collaborative online platforms. These technological tools empower students to learn at their own pace, explore topics in depth, receive immediate feedback, and collaborate with peers regardless of their location. Additionally, technology allows teachers to collect and analyze data on student progress more efficiently, enabling them to make data-driven decisions and adjust instruction accordingly. Therefore, the integration of technology into differentiated instruction not only expands the possibilities for individualized learning but also streamlines the process for educators, ultimately leading to more inclusive and effective teaching practices.

Technology plays a crucial role across various fields, particularly within educational institutions (Puspitawati et al., 2021). The current curriculum objectives emphasize the integration of technology into teaching and learning practices. Technology offers diverse avenues for learning, and teachers must adapt their instructional approaches to incorporate technology effectively in support of the curriculum objectives. It serves as a vital tool for delivering digital multimedia resources (such as audio, visual, and audio-visual materials) to enhance learning experiences tailored to students' levels of engagement (Nawaila et al., 2020). The integration of technology into teaching practices expands the range of learning possibilities for students, empowering them to explore various learning models through educational technology platforms. This integration not only enriches the quality of learning experiences but also provides access to vast informational resources beyond what teachers can offer directly (Gilakjani, 2017).

Technology integration in teaching enhances the pedagogical elements of the learning process, fostering interactive, meaningful, and fulfilling learning experiences for students (Shah, 2022). Teachers must align their teaching methods with technology integration, ensuring that technology enhances the learning process and is seamlessly integrated into instructional practices. Additionally, technology integration should emphasize student-centered learning and be aligned with teaching methodologies (Gunuç & Babacan, 2017). In light of recent curriculum requirements promoting student autonomy and flexible learning, teachers serve as facilitators, guiding students in self-directed learning journeys. This entails differentiating instruction to accommodate diverse student needs and preferences effectively.

In the modern educational landscape, the integration of differentiated instruction with technology has brought about a significant revolution in teaching and learning practices. Differentiated instructional methods can be effectively implemented when combined with technology, offering educators the tools to customize instruction according to the diverse needs of students while leveraging the innovative resources that technology offers. By seamlessly integrating technology into differentiated instruction, teachers can create dynamic and personalized learning experiences that engage students, deepen understanding, and promote academic success. The relationship between differentiated instruction and technology has a notable impact on students' learning experiences, as technology can be optimized within the differentiation method in the teaching and learning process. Integrated differentiated instruction with technology aims to provide students with access to various content using appropriate tools based on their individual needs, thereby supporting them in achieving their learning objectives (Kaur et al., 2017). Differentiated teaching methods combined with technology enable teachers to engage students in diverse learning modalities at various proficiency levels (Stanford et al., 2010). Technology facilitates efficient student identification through instructional practices, positively impacting students' performance in significant ways of learning.

Moreover, technology integrated into differentiated instruction enhances students' interest in learning by aligning with curriculum objectives, fostering collaboration, providing rapid feedback on performance, improving learning efficiency, offering opportunities for project-based learning, and providing a variety of content options for students to choose from and convey their knowledge (Smith

& Throne, 2011). The use of technology simplifies the differentiation of students' learning methods and provides teachers with numerous tools to enhance the quality of learning in the classroom. For example, integrating technology allows teachers to be more innovative and efficient in creating diverse content for students, considering their individual learning preferences (Morgan, 2017). Various technological resources, such as PowerPoint, YouTube, Canvas, Podcasts, and other educational platforms, serve as learning media that aid teachers in differentiating instruction. Additionally, technology enables teachers to tailor the learning model by content, process, and product options based on students' preferred learning styles (Maeng, 2017).

To effectively implement differentiated instructional methods with technology, teachers must possess the necessary knowledge and skills to integrate technology into their teaching practices. This readiness can be categorized into pedagogical and technical aspects. Pedagogical readiness refers to teachers' belief in their preparedness for instructional changes and their perception of their students' readiness (Howard, 2020). Teachers who are adequately prepared to integrate technology into their teaching are more likely to enhance the quality of learning experiences within the classroom (Bachtiar et al., 2022).

Teachers' readiness to use technology in differentiated instruction involves their ability to prepare and integrate differentiated teaching methods with technology to achieve learning goals effectively. Understanding their readiness allows teachers to identify the skills required for technology integration and the availability of software tools, such as WhatsApp, Google Classroom, Schoology, and other e-learning platforms, to facilitate differentiated instruction. Moreover,

teachers must be prepared to integrate technology with differentiated instruction in their classrooms. This study explores English teachers' readiness to implement differentiated instruction with educational technology, considering aspects such as effort, willingness, and capacity (Dalton et al., 2017). Based on preliminary observations and interviews with English teachers at vocational high schools, it was found that differentiated instruction integrated with technology is already being implemented in English classes. This implementation aligns with the curriculum's requirements to differentiate instruction based on students' needs, abilities, and interests. Furthermore, technology integrated into differentiated instruction plays a crucial role in helping students achieve learning objectives. Teachers must consider various aspects, such as learning media and materials, as well as their own readiness to differentiate instruction integrated with technology. This readiness ensures that technology is effectively utilized to support students' diverse learning needs and enhance their learning experiences.

Furthermore, there was research on the implementation of differentiated instruction integrated with technology in Indonesia. Several previous research studies examined the perceptions or perspectives and challenges in implementing differentiated instruction integrated with technology but less previous studies have read the implementation of differentiated instruction integrated with technology and its readiness to implement it. Thus, in this research, the researcher is interested in investigating how differentiated instruction integrated with technology is implemented and how teachers are ready to implement differentiated instruction integrated with technology at SMK Negeri 2 Singaraja.

1.2 Problem Identification

Based on the research background written above and the preliminary observation conducted by the researcher, several issues in tenth-grade English teachers at SMK Negeri 2 Singaraja relate to the implementation of differentiated instruction integrated with the use of technology. The researcher has collected the information from English teachers. The information collected states that English teachers implemented the differentiated instruction approach combining with technology to differentiate the students within the classroom based on student's needs and interests to deliver learning, assess knowledge, support, and achieve the learning objectives at SMK Negeri 2 Singaraja. Teachers who teach students with different abilities must determine the appropriate learning approaches to provide them with specific preferences based on their interests and needs through three significant elements to differentiate students through instruction: content, process, and product. Teachers have to decide the practical learning approaches for the students. Determining the proper learning approaches may become a challenge faced by the teachers within the class. With the students' diverse abilities and to overcome the problem, utilizing technology can be used as an effective interface use to differentiate the students and provide them with appropriate materials so that teachers as facilitators can meet the needs of students in learning especially in learning English. In implementing differentiated instruction integrated with technology, teachers must prepare well to provide students with diverse content, processes, and products. Furthermore, the researcher identified how the readiness of teachers to implement differentiated instruction integrated with technology.

1.3 Limitation of the Problem

To be deeply examined, several limitations need to be considered by the researcher. The researcher needs to limit the study to the grade of English teachers at SMK Negeri 2 Singaraja in the 2023-2024 academic year as preferred to be the main informant for the researcher to observe an issue above. Due to the diverse abilities within the classroom, teachers must consider the learning approach used to differentiate the students, which is aligned with the MBKM curriculum. Thus, this study focuses on how differentiated instruction was implemented by the English teachers at SMK N 2 Singaraja in English classroom activities. The tenth-grade English teachers decided to be the subject of the research because they were implementing differentiated instruction integrated with technology in English class activity, which aligns with Merdeka Belajar curriculum. Furthermore, using instructional technology supports the teachers in differentiating the students throughout the teaching and learning process. Additionally, to support the qualitative data, this research also majored in teachers' readiness to integrate technology in implementing differentiated instruction within the classroom with diverse abilities at SMK N 2 Singaraja.

1.4 Research Questions

Based on the background of the research described above, the research questions are stated in such formulation below:

1. How was differentiated instruction integrated with technology implemented by the English teachers at SMK Negeri 2 Singaraja?
2. How were English teachers' readiness in implementing differentiated instruction integrated with technology at SMK Negeri 2 Singaraja?

1.5 Research Objectives

There are two kinds of research objectives in this study, namely general objective and specific objective, as below:

1. General Objective

Generally, this study aims to observe how teachers implement differentiated instruction with technology and investigate the English teachers' readiness to implement differentiated instruction integrated with technology in English classes at SMK N 2 Singaraja.

2. Specific Objectives

- a) To observe the teaching process using differentiated instruction integrated with technology in English class on tenth-grade English teachers at SMK N 2 Singaraja.
- b) To investigate the teachers' readiness to teach English using differentiated instruction integrated with technology in English class in tenth grade at SMK N 2 Singaraja.

1.6 Research Significance

The researcher hopes that this research will have several significances. The study is expected to be significant because it provides theoretically and practically beneficial information. There are two kinds of significance in this study, which are divided into two major significances: theoretical significance and practical significance, elaborated in the following section:

1. Theoretical Significance

Theoretically, this present study is expected to contribute some support to be a reference for other researchers in carrying out similar research in the future. This

study is expected to add the information for the previous research. This research provides a clear overview of implementing differentiated instruction integrated with technology through observation and measuring the teachers' readiness to implement differentiated instruction integrated with technology. This research is also expected to be used as a reference or a source for other researchers, specifically English teachers who will do the same study.

2. Practical Significance.

Practically, this research is expected to offer several benefits as below:

a) For students

The results of this study are expected to give a clear understanding, open plenty of opportunities to self-regulate learning, and give students new experiences for effective instruction through technology integration in English classes.

b) For teachers

The results of this study are expected to be useful for teachers as a piece of additional information and knowledge to improve the quality of teaching English based on the student's needs and interests. After finishing this research, English teachers are also expected to teach students using appropriate teaching approaches or strategies that appeal to the students' needs and interests through using instructional technology to differentiate the learning so that teachers can effectively accommodate the teaching. Furthermore, this study can be used as an innovative, differentiated learning approach in teaching and learning students using technology.

c) For future researchers

The information provided in this study will be beneficial for future researchers as a reference for the following analysis and additional sources of knowledge. It will give a more profound analysis. It can also enrich other researchers' knowledge and experiences in the specific research in implementing differentiated instruction with technology integration.

