

CHAPTER I INTRODUCTION

This chapter covers the introduction of the study, such as research background, problem identification, research limitation, statement of problem, research objectives, and research significance.

1.1 Research Background

English serves as an international language for communication between people from various linguistic and cultural backgrounds, according to Manuaba and Putra (2020). The study backs up the significance of learning English as a communication tool in international educational and social settings. Beyond everyday communication, it is extensively utilized in education, international trade, research, technology, diplomacy, and global cooperation (Kramsch, C. ,2014). Consequently, the ability to communicate effectively in English has become an essential competency in academic, professional, and international contexts (Rana, B. B. ,2023). In the Indonesian education system, English is a compulsory subject that supports the development of students' academic and communicative competencies. English language teaching has been implemented at various levels of education, from elementary to higher education, with the aim of preparing students to participate in global communication and access international knowledge (Zein et al. ,2020). This objective is particularly relevant in vocational schools, where education is designed to equip students with practical knowledge and occupational skills that meet the demands of the labor market. As institutions that emphasize career readiness, vocational schools are expected to develop graduates who possess not only technical expertise but also adequate English communication skills to function effectively in professional workplaces. Therefore, vocational students are required to acquire both job related competencies and English language proficiency to understand technical manuals, workplace documents, and communicate effectively with colleagues, clients, and international business partners, thereby enhancing their employability in both local and global job markets (Basturkmen, 2010; Widodo, 2016). English proficiency enables students to understand technical manuals, product specifications, safety regulations, and

other workplace documents that are predominantly written in English. In addition, the ability to communicate effectively in English is increasingly associated with graduates' opportunities to collaborate with international clients, business partners, and global industries, particularly in the era of globalization and digital transformation (Kuteeva, M., 2024). Consequently, integrating English language instruction with vocational content is essential for developing students' employability skills and enhancing their competitiveness in both local and international labor markets.

Educational technology in English requires students to have adequate language skills to access, understand, and critically evaluate information from various global sources (Kuteeva, 2024; Zein et al., 2020). In today's world of digital learning, technology has become a key part of both teaching and learning. In the field of teaching English, technology helps create learning environments that are more engaging, flexible, and tailored to what students need (Jeong, 2022). Teachers can use many digital tools like videos, podcasts, learning apps, and online games to help students improve their language skills and how they communicate. Moreover, technology helps people access educational materials anytime and anywhere, which supports self directed learning and increases learners' ability to take control of their own education (Jeong, 2022). The integration of technology encourages students to participate actively in constructing knowledge while enabling teachers to implement instructional strategies that accommodate diverse learning characteristics (Koehler & Mishra, 2009). Consequently, students' learning motivation, engagement, and confidence in using English can be enhanced through meaningful learning experiences (Dornyei, 2001). Furthermore, digital assessment systems and online feedback enable teachers to monitor students' learning progress more efficiently and provide timely instructional support, thereby improving the effectiveness of teaching and learning (Nicol, 2021; Redecker & Johannessen, 2013). Beyond improving instructional effectiveness, technology contributes to the development of creativity, critical thinking, collaboration, and communication, which are considered essential competencies for twenty first century learners (van Laar et al., 2017). Technology also strengthens the implementation of student centered learning by encouraging learners to explore knowledge independently while facilitating more effective communication between teachers and students. Access to authentic digital English resources exposes learners to real life language

use and diverse cultural contexts, thereby improving listening, speaking, reading, and writing skills in an integrated manner. In addition, technology enables learning activities to be adapted to students' proficiency levels and individual learning pace, resulting in more personalized and meaningful learning experiences (Godwin Jones, R., 2018).

In Indonesian Vocational High Schools (SMK), the challenges of teaching English as a Foreign Language (EFL) are becoming increasingly complex because English instruction is expected to prepare students not only for academic achievement but also for effective communication in professional and workplace contexts (Sulistiyo, U., 2016). Vocational education focuses on developing the skills and knowledge needed for specific jobs by offering learning experiences that are closely related to the profession (Billett, 2011). Despite these expectations, many vocational students continue to experience difficulties in developing English language skills due to limited vocabulary, lack of English language practice, and challenges in improving English language skills in communication (Ocktavia et al., 2025). As learners of English as a Foreign Language (EFL), students have limited opportunities to use English outside the classroom, which often results in varying levels of language readiness and proficiency (Nation & Macalister, 2010). In addition, vocational classrooms consist of students with a wide range of characteristics, such as varying levels of readiness to learn, different interests, diverse background knowledge, and distinct learning styles. This diversity leads to challenging learning situations that demand English teachers to use adaptable and sensitive teaching methods to properly meet the different learning requirements of students. According to Tomlinson et al. (2003), effective teaching should take into account the different needs of students by adjusting instructional methods to match their level of readiness, personal interests, and learning styles. By considering these individual differences, teachers can develop more meaningful and inclusive learning experiences that better meet the needs of students. Risnada and Tiarina (2024) highlight that English teachers in vocational high schools should implement differentiated instruction, creating learning experiences centered on students that meet their varied learning needs. By incorporating authentic language use into meaningful learning activities, teachers can create more inclusive and responsive English learning environments that encourage greater student engagement and contribute to improved learning outcomes.

Differentiated instruction is a teaching method that focuses on students and takes into account their different learning needs. It involves adapting lessons to meet students' diverse needs by modifying instruction based on their readiness levels, interests, and learning profiles to enhance understanding and learning outcomes (Tomlinson, 2017; Suprayogi et al., 2017). To adapt lessons to meet student needs, it is necessary to modify them according to students' readiness levels so they can better learn and comprehend information (Tomlinson, 2017; Smale-Jacobs et al.). As explained by Pozas et al. (2021), teachers continuously adjust the essential elements of instruction to create learning experiences that are responsive to student diversity and maximize learning opportunities. Teachers frequently adjust the primary components of their instruction and supervise students in a classroom environment to guarantee alignment with student objectives. The implementation of differentiated teaching methods enables teachers to modify the fundamental components of teaching and teach students in a way that facilitates learning. Content differentiation means changing the way learning materials, resources, or the difficulty of information is presented to fit what students already know and how ready they are to learn. Process differentiation means using different teaching methods, learning tasks, group arrangements, and support strategies so that students can understand and work with information in ways that match how they best learn. Through differentiation, students can demonstrate their skills in a range of ways, such as writing presentations, making reports, undertaking projects, creating videos, crafting portfolios, and highlighting their strengths and interests. Finally, learning environment differentiation is about making a classroom that is flexible, supportive, and welcoming for everyone. Suprayogi et al. (2017) emphasized that an adaptive learning environment enables teachers to accommodate students' diverse learning preferences while fostering greater participation, collaboration, and engagement throughout the learning process.

The integration of technology is closely associated with the implementation of differentiated instruction, enables educators to recognize the diverse learning needs of their students. Differentiated instruction is a student centered teaching approach that modifies content, process, product, and learning environment according to students' readiness, interests, and learning profiles (Carol Ann Tomlinson, 2017; Bondie et al., 2019). Technology enables teachers to implement differentiated instruction by providing flexible

learning activities, adapting assignments to students' ability levels, and monitoring student progress through digital assessments (Bondie et al., 2019; Matthew J. Koehler & Punya Mishra, 2009). Furthermore, integrating technology into the curriculum expands learning opportunities by supporting flexible grouping, personalized feedback, and learning experiences that accommodate diverse learning styles and needs (Trust & Whalen, 2020). By utilizing technology as an instructional tool, teachers can enhance instructional effectiveness and improve students' learning outcomes. The implementation of technology based differentiated instruction requires teachers to possess adequate technological knowledge and the ability to select appropriate digital tools that align with instructional objectives and students' learning needs (Koehler & Mishra, 2009). Technology also encourages students to construct meaningful learning experiences through communication, collaboration, creativity, and active participation in the learning process (International Society for Technology in Education, 2016). When teachers integrate technology purposefully and effectively, differentiated instruction becomes more meaningful and can increase students' engagement, motivation, and academic achievement (Bondie et al., 2019; Trust & Whalen, 2020).

Although technology has expanded the possibilities for implementing Differentiated Instruction (DI), its successful implementation does not depend solely on teachers' instructional competence or the availability of digital resources. Another essential factor is students' beliefs, which refer to learners' perceptions, attitudes, and expectations regarding the learning process and the instructional approaches they experience. Students' beliefs influence how they interpret learning activities, respond to classroom instruction, and engage with technology enhanced learning environments. According to Bandura (1997), learners' beliefs about their own capabilities shape their motivation, persistence, and academic performance. Likewise, Pajares (1992) argues that students' beliefs significantly influence their learning behaviors, decision making processes, and willingness to participate in educational activities. Therefore, understanding students' beliefs is essential for ensuring that technology supported differentiated instruction can effectively meet diverse learning needs.

Based on the preliminary classroom observation conducted at SMK Negeri 1 Sukasada, students in the English learning environment student have different

characteristics, learning styles, and student abilities. The English teacher has integrated various forms of educational technology, to facilitate classroom instruction and enhance student engagement. Classroom observations further revealed that students exhibit varying levels of participation, confidence, and academic performance, with some learners actively engaging in English communication while others encounter difficulties in comprehending learning materials and expressing their ideas. These differences also influence students' beliefs toward English learning, as learners with higher confidence tend to perceive English as achievable and useful, whereas those with lower proficiency often demonstrate limited self-efficacy and reduced learning motivation. Such conditions indicate that the existing use of technology has not been fully optimized to support differentiated instruction that accommodates students' diverse readiness levels, interests, and learning profiles. Therefore, implementing technology-based differentiated instruction is considered essential to provide personalized learning experiences, strengthen students' positive beliefs toward English learning, and create a more inclusive, engaging, and effective EFL classroom environment at SMK Negeri 1 Sukasada.

1.2 Problem Identification

Based on the background presented above, several problems can be identified in the context of English as a Foreign Language (EFL) learning in vocational high schools. One of the primary challenges is the diversity of students' readiness levels, interests, and learning profiles within the same classroom. These differences influence the ways students learn, process information, and achieve learning outcomes. Consequently, teachers are expected to design instructional practices that are responsive to learners' diverse needs while ensuring that all students have equal opportunities to succeed. Differentiated instruction has been widely recognized as an effective student-centered approach to addressing classroom diversity by adapting learning objectives, instructional processes, learning materials, and assessment based on students' readiness, interests, and learning profiles (Tomlinson, 2017). Furthermore, the increasing integration of educational technology into English language teaching provides teachers with greater opportunities to implement differentiated instruction through flexible learning activities, personalized learning resources, digital assessments, and immediate feedback. Educational technology

not only supports differentiated instruction model but also promotes students' engagement, autonomy, and meaningful learning experiences in EFL classrooms (Bond et al., 2020; Trust & Whalen, 2020). Another important issue concerns students' beliefs about learning English, which may influence the effectiveness of technology-based differentiated instruction. Students possess different beliefs regarding their language learning abilities, the value of learning English, and the use of technology in the learning process. These beliefs significantly influence students' motivation, engagement, participation, and willingness to take part in classroom activities (Mercer & Ryan, 2010; Dornyei, 2009). As a result, students with different beliefs may respond differently to the same instructional practices, including technology-based differentiated instruction. Although previous studies have extensively discussed differentiated instruction, educational technology, and students' beliefs as separate areas of research, studies examining the implementation of technology-based differentiated instruction together with students' beliefs in EFL classrooms, particularly in vocational high schools, remain limited. Therefore, further research is necessary to provide a comprehensive understanding of how technology-based differentiated instruction is implemented and how students' beliefs influence its implementation in vocational high school EFL classrooms.

1.3 Research Limitation

This study is limited to investigating the implementation of technology-based differentiated instruction in EFL classrooms at SMK Negeri 1 Sukasada. The study focuses on one English teacher and the selected students who participate in the implementation of technology-based differentiated instruction. Furthermore, this study only examines two aspects: (1) the implementation of technology-based differentiated instruction in the classroom and (2) students' beliefs toward its implementation. The data are collected through classroom observation and questionnaires. Therefore, this study does not investigate the effectiveness of differentiated instruction on students' learning achievement, teachers' professional competence, or other factors beyond the implementation process and students' beliefs.

1.4 Research Questions

1. How do English teachers implement technology based differentiated instruction in EFL classrooms at SMK N 1 Sukasada?
2. What are the students' beliefs regarding the implementation of technology-based differentiated instruction in EFL classrooms at SMK N 1 Sukasada?

1.5 Statement of Problem

Based on the background and the problem identification presented above, the research questions of this study are formulated as follows:

1. How do English teachers implement technology based differentiated instruction in EFL classrooms at SMK N 1 Sukasada?
2. What are the students' beliefs regarding the implementation of technology-based differentiated instruction in EFL classrooms at SMK N 1 Sukasada?

1.6 Research Objectives

Based on the research background presented above, the purposes of this study are as follows:

1. To analyze how English teachers implement technology-based differentiated instruction in EFL classrooms at SMK N 1 Sukasada.
2. To investigate students' beliefs regarding the implementation of technology-based differentiated instruction in EFL classrooms at SMK N 1 Sukasada.

1.7 Research Significance

1. For Teachers

The findings of this study are expected to provide English teachers with valuable insights into the implementation of technology-based differentiated instruction and students' beliefs regarding its implementation in EFL classrooms. These findings may assist teachers in designing and implementing instructional practices that accommodate

students' diverse learning needs while fostering positive beliefs toward English learning and the use of educational technology.

2. For Students

The findings of this study are expected to help students better understand the implementation of technology-based differentiated instruction and recognize the importance of developing positive beliefs toward the use of educational technology in English language learning. It is also expected to encourage greater motivation, engagement, and active participation in the learning process.

3. For Future Researchers

The findings of this study are expected to serve as a valuable reference for future researchers who intend to conduct further studies on technology-based differentiated instruction and students' beliefs in EFL contexts. Furthermore, this study may provide empirical evidence and recommendations for the development of future research in this field.

1.8 Definition of Key Terms

To avoid misunderstanding the use of some terms, the definition of key terms can be seen as follows:

1.8.1 Technology-Based Differentiated Instruction Model

Technology based differentiated instruction is a learning approach that implements digital technology with differentiated instruction methods to provide learning experiences for students with diverse characteristics. This approach addresses students with varying levels of readiness, interests, learning profiles, and learning needs. Therefore, teachers must design learning that is flexible and responsive to these differences. According to Tomlinson (2001), differentiated instruction allows teachers to modify and design learning content, learning processes, and learning products to ensure that each student has an equal opportunity to achieve optimal learning outcomes. Furthermore, technology encourages active, student-centered learning by enabling teachers to create adaptive learning environments that foster collaboration, creativity, and learner autonomy (Koehler et al., 2013). In this study, technology based

differentiated instruction refers to the use of digital technology by English teachers to differentiate content, processes, and products in EFL classes at SMK N 1 Sukasada to meet students' diverse learning needs and improve the quality of English language learning.

1.8.2 Student Beliefs

Student beliefs are generally understood as students' personal perceptions, assumptions, and expectations about language learning, their own learning abilities, and the learning practices they experience in the classroom. These beliefs are developed through students' prior learning experiences, classroom interactions, and individual characteristics, and influence how students participate during the classroom learning process (Horwitz, 1987; Ellis, 2008). Positive beliefs encourage students to actively participate, while negative beliefs can reduce students' confidence and engagement in the classroom (Mercer & Ryan, 2010; Shibata, 2019). Therefore, understanding student beliefs is crucial because these beliefs can influence the success of learning practices, including the implementation of technology-based differentiated instruction model. In this study, student beliefs refer to students' perceptions, attitudes, and expectations regarding the implementation of technology based differentiated instruction model in EFL classes at SMK N 1 Sukasada.

1.8.3 Implementation

Implementation refers to the process of implementing a planned educational program, teaching strategy, or innovation into the learning process so that students achieve their learning objectives (Fullan, 2007). Appropriate implementation requires careful planning, appropriate teaching strategies, and ongoing evaluation to ensure that educational practices effectively meet students' learning needs. In this study, implementation refers to how English teachers implemented technology based differentiated instruction during the teaching and learning process in EFL classes at SMK N 1 Sukasada.

1.8.4 Analysis

Analysis refers to the systematic process of organizing, examining, interpreting, and drawing conclusions from collected data to answer research questions and achieve

research objectives Moser, A., & Korstjens, I. (2018). In mixed methods research, data analysis involves combining qualitative and quantitative findings to determine the ability to understand the research phenomenon (Creswell & Plano Clark, 2018). In this study, data collection refers to the examination of qualitative data obtained from classroom observations and along with quantitative data collected through student questionnaires, to understand the implementation of technology based differentiated instruction model and students' beliefs in EFL classes at SMK N 1 Sukasada.

