CHAPTER I
INTRODUCTION

This chapter discusses the background of the study, research questions, purpose of the study, scope of the study and significance of the study.

1.1. Background of the Study

With the fourth industrial revolution, the development of Information and Communication Technology (ICT) has resulted in rapid changes in all aspects of life. Likewise, advances in digital technology have changed how people interact, collaborate, resolve issues, decide, and absorb information, particularly as increased aspects of daily life have migrated to the Information Age (OECD, 2019b). Not only that, the 21st-century era has had an enormous impact on education; technology is no longer a complementary tool but primary need. This shifting has also led to a more qualified and highly trained workforce demand, as the abilities taught decades ago differ significantly from what would be expected in the coming several years (Benešová & Tupa, 2017). Therefore, in this fast-paced and highly interconnected world, each learner must possess a wide range of skills that will enable them to tackle unpredictable challenges in the future (Scott, 2015), as so-called digital literacy.

According to UNICEF (Nascimbeni & Vosloo, 2019), digital literacy means someone who has chances, abilities, and rights to utilize or not utilize digital content that allows individuals to benefit and avoid harmful effects of the digital content across all of the Internet domains. Some people believed that digital literacy referred to the ability to use a computer and by incorporating computer technology into the classroom, we will be able to produce digitally literate learners (Mantiri et al., 2019). However, one does not automatically lead to the other. The term digital literacy was popularized by Paul Gilster in his 1997 book, where he coined this term as the "literacy for the digital age" and described it as the capability to understand and use information in multiple forms and from a variety of sources, and presented

through computational means (Gilster, 1997). Meanwhile, Martin & Grudzieck (2006) stated that digital literacy underpins the term digital competence (knowledge and attitudes related to the operational use of digital technology), digital usage (the use of digital competence), and digital transformation (the use of digital technology to bring innovation and creativity). In other words, when the learners are considered digitally literate, they should develop the aspects of digital competency, digital usage, and digital transformation in themselves.

The urge for digital literacy has become even more urgent when the COVID-19 outbreak forced school closures and ceased face-to-face instruction. This pandemic has created a massive disruption in educational systems worldwide, affecting 80 million children in Indonesia (Karana, 2021). Yarrow et al. (2020) predicted that students have missed half a year of learning due to school closures. Based on school closures from the end of March to September 2020, they estimated a learning loss of 16 reading points on PISA (Program for International Student Assessment) (Yarrow et al., 2021). Furthermore, the pandemic has sparked the digital transformation of education and challenged the government and other educational institutions' ability to respond promptly and effectively. This response included, but was not limited to, curriculum adjustments, academic calendar shifts, instructional delivery and assessment policy (Barrot et al., 2021) and provision for digital learning materials.

If done well, online learning has several advantages, including greater flexibility, pedagogical creativity, and cost-effectiveness (Graham, 2006). Despite the benefits, the shift to a new learning environment in Indonesia has faced several significant issues (Haumahu, 2020). As shown in research conducted by Haumahu (2020), the main barriers to the online learning process were the lack of technical competency, the additional cost of internet service, and the reduced communication and interaction among students, teachers, and parents. Moreover, most researchers found that technology use and competence are the most prevalent obstacles students experience in online classes (Abubakar Rasheed et al., 2020). It becomes evident with the

evolement of operating systems, computer hardware, and software technology. Students who lack competency and proficiency with the usage of various hardware and software technologies may not be able to effectively handle the complexity of technological variations for learning. It was one of the signs indicating the lack of digital literacy among Indonesian students.

Even though today's students are familiar with a variety of technological devices, the findings indicated that they are still lack of comprehensive digital literacy (Tampubolon, 2017). This condition was relevant to the study from Porat et al. (2018). Porat et al. (2018) examined digital literacies among 280 junior high school students to compare the participants' perceived digital literacies with their actual performance on relevant digital tasks. Based on the study, students had great confidence in their digital literacy; nevertheless, most of them have high perceived abilities but low actual performance. For educational decision-makers, the finding suggested the need to develop training programs with a focus on developing students' social-emotional abilities and their digital literacy. Such training can enhance the skills needed, minimize misleading self-perceptions, and so promote digital literacy in current society.

In addition to students, disparities are also found in the ability of teachers to use technology in online learning. As the front-line workers in the educational system, who were used to conventional teaching delivery, teachers are also obliged to embrace technology despite their lack of digital literacy. Teachers' digital literacy is limited to sending messages and accessing online services like *Zoom cloud meetings, Google Meet, Cisco Webex, Microsoft Teams, Whatsapp, and Google Classroom* (Mayuni et al., 2021). Teachers have not yet optimized the use of technology to develop teaching resources or collect information to enhance the quality of learning.

Concerning the integration of technology in English language learning, having a sufficient level of digital literacy is considered necessary. By having digital literacy, EFL (English as Foreign Language) learners are expected to have more than only the technical skills to run digital devices and access the internet, but instead encompass a set of knowledge, skills, and attitudes

needed to perform in the digital era. As a result, teachers must be aware of digital technology use in their classroom since it has a significant impact on language learners' development (Chun et al., 2016; Lam et al., 2018; Hembrough & Jordan, 2020). Several previous studies have proved that integrating digital literacy in education benefits teachers in the classroom and have positive effects on students' learning. Firstly, Hussain (2018) asserted that the use of ICT in the language classroom affected the increase of students' autonomous learning, motivation, and performance in EFL (English as Foreign Language) learning. Secondly, in the article titled How Digital Literacy Tools Help English Language Learners Succeed, the Center for Digital Education in California cited in Mantiri et al. (2019) stated that digital literacy software's key features made learning more accessible and more entertaining. As a result, students were more likely to be motivated intrinsically. Thirdly, digital literacy aided students' understanding to share and communicate digital content ethically (Maphosa & Bhebhe, 2019).

Therefore, provisioning efforts related to digital literacy through multiple channels are necessary for dealing with the issues outlined. In addition, one of the objectives of UNESCO's Global Education 2030 Agenda is to provide inclusive and equitable quality education and encourage lifelong learning opportunities for everyone (UNESCO, 2016) . In this context, according to Kemendikbud (2017), utilizing digital technology as the learning material could help improve students' digital literacy and promote lifelong learning. Thus, one of the digital literacy extension channels is through the incorporation of digital literacy in digital learning materials in EFL (English as Foreign Language) learning.

Digital learning materials, based on Sariyatun (2021) are digitized and integrated learning materials. Besides, Lau et al., (2017) stated that teachers believed that digital learning materials are a technology that may help them support teaching and learning activities more efficiently. In the context of learning English, Mayuni et al. (2019) suggested the development of digital-based English literacy materials to facilitate a meaningful English learning process. Digital-based learning focuses not just on students' English abilities,

but also on using technology as a tool for self-directed learning, strengthening critical thinking skills, and accessing and selecting material from a variety of sources to help students develop their creativity.

The 2013 Curriculum specifies a topic map and genre-based English curriculum learning accomplishments and the digital technologies that will be used to develop teaching materials and language skills (Mayuni et al., 2021). Combining knowledge and skills utilizing digital technology must be emphasized while designing digital-based English learning materials so that students can practice communicating, collaborating, obtaining information, learning to solve issues, and developing attitudes and creativity (Ala-Mutka, 2011).

More recently, only a few scholars have started to examine the effectiveness of using digital learning materials. Sariyatun et al. (2018) emphasized teachers' practical motivations for using digital learning materials, such as teachers' assumptions that digital learning materials can be more entertaining, simpler to grasp, and less expensive for students. Another study by Sariyatun et al. (2021) in the field of social studies found that using digital learning materials increased junior high school students' social skills more than using printed textbooks.

To mitigate the negative consequences of the COVID-19 on education and integrate technology into the classroom nowadays, the Ministry of Education, Culture, Research, and Technology of Indonesia took action to accelerate changes in modes of delivering quality education. It was done by providing various online learning programs for students and teachers, such as live streaming of *Rumah Belajar*, *TV Edukasi*, and so on. One of them, *Rumah Belajar,* has been built to facilitate the availability of content learning materials with supported media graphics, animations, videos, and simulations. Nonetheless, this effort should be broadened, as there were still issues over the availability of digital learning materials for junior high school students. *Rumah Belajar* was still not considered well organized (Reimers et al., 2020) and the video had some damaged images that make it difficult for students to comprehend the subject (Hevria, 2019). However, on *TV Edukasi*,

sound and visuals were often delayed, making the display less clear and less entertaining to watch (Murwitaningsih, 2016). In addition, the availability of digital materials aligned with the 2013 Curriculum for English language study in junior high school remained limited.

Although the government has tried to provide qualified digital learning materials, we can see that the availability of digital learning materials aligned with the 2013 Curriculum for English language study in Junior High School is currently insufficient. As a result, the researchers has seen the urgency of developing a digital-based English learning material called *My English Step* website (https://www.myenglishstep.com/). The development of this website began with a survey method to map the students and teachers' needs for digital learning materials at Junior High School, particularly during the Covid-19 outbreak. *My English Step* is integrated with several types of applications available, such as *Kahoot, Bamboozle, Padlet, Lyricstraining, Canva, Liveworksheet, Quizziz, YouTube, Soundcloud,* and referred to basic competencies in 2013 Curriculum. It is aimed to integrate proficiency in English literacy content and increase students' digital literacy and launched in 2021.

According to the above review, some research has been conducted to examine the benefits of digital literacy in EFL (English as Foreign Language) learning. However, only a few research has examined the incorporation of digital literacy in digital learning materials for EFL learners. Agusprayuningtyas et al., (2022) have done a study related to the incorporation of digital literacy in EFL learning materials for senior high school students. The digital learning materials analyzed in the study consist of 5 books, 8 PowerPoint slides, 4 handouts, 6 worksheets, 7 videos, 4 e-modules, and 2 web articles. This study discovered that digital literacy is not yet optimally incorporated into learning materials. Only 16 of the 36 English learning materials appear to incorporate indicators of digital literacy, while others do not include digital literacy at all. The same finding is found by Dewanti et al. (2022) in the scope of digital literacy in vocational high school English learning materials. It is found that not all English learning materials

analyzed incorporated digital literacy; only five out of seven digital literacy components (information processing, operation skills, communication and collaboration, critical thinking and problem solving, and ethics), ordered from the highest to the lowest number of incorporations, were incorporated. Citizenship and e-safety, which are equally essential, are lacking from all English-learning materials.

Based on the previous studies above, there is no study that focuses on the junior high school level. It becomes a concern because this topic is crucial to be discussed during online learning. Other than that, there has been no review of *My English Step* since its launch in 2021. As a result, the present study will fill the gap by analyzing to what extent the incorporation of digital literacy in digital learning materials and what digital literacy strategies that are incorporated in *My English Step* website. Therefore, this study may be worthwhile to discover whether the digital learning materials in *My English Step* have incorporated digital literacy or not as their initial aims.

1.2. Research Question

Based on the background of the study above, the statements of the research questions are formulated as follows:

1. To what extent is digital literacy incorporated in the digital learning materials for grades 7, 8, and 9 in *My English Step* website?
2. What digital literacy strategies are incorporated into the digital learning materials for grade 7,8, and 9 in *My English Step* website?

1.3. Purposes of the Study

Based on the research questions above, the purposes of the study are:

1. To analyze the extent to which digital literacy is incorporated in the digital learning materials for grades 7, 8, and 9 in *My English Step* website; and
2. To describe the digital literacy strategies that are incorporated into the digital learning materials for grades 7, 8, and 9 in *My English Step* website.

1.4. Scope of the Study

The study focuses on analyzing the extent and describing strategies of the incorporation of digital literacy in the digital learning materials for junior high school students in grades 7,8 and 9. The digital learning materials from which the data are retrieved are restricted in *My English Step* website.

1.5. Significance of the Study

This research is expected to make a significant contribution to the field of digital literacy. In the theoretical aspect, it could be a reference for further study on the integration of digital literacy with a different focus or level. In the practical aspect, the result of this study could help teachers, student teachers, and English Language Education Study Programme students by raising the awareness of the importance to incorporate digital literacy in their learning process. In addition, the indicators of digital literacy incorporation could help teachers to incorporate those skills in their selected learning materials. Besides, the components of digital literacy can also be beneficial for education stakeholders in choosing proper digital learning materials especially in English subject. Lastly, this study could be beneficial for the My English Step website's developer to improve the learning materials available.