CHAPTER I
INTRODUCTION

1.1   Background of the study

Microlearning has recently attracted a lot of attention as a global shortcut in teaching and learning activities. The students feel more focused on their goals as a result of the learning process being bite-sized, well-planned, and brief. A technology-mediated learning technique called microlearning (ML) exposes students to quick learning tasks in a formal or informal setting (Khong & Kabilan, 2020). The idea behind microlearning is to make informational snippets as brief as possible while still addressing a learning aim (Allela, 2021). However, this recent teaching and learning innovation has the potential to address some of the issues that online teaching and learning encounter (Gill et al., 2020). Eventually, microlearning will become an online learning trend that satisfies the demands of learners as well as educators in the digital age.

This small learning is believed to be effective method because it provides materials as short and clear as possible, but still achieves the desired learning objectives at the beginning. Leong et al. (2021) mentioned that human attention spans are decreasing in the era of big data. Despite the fact that big data has an important role in microlearning. Therefore, microlearning innovation is needed because humans have a focus of attention that tends to be short when they are going to access something. According to Allela (2021) focused learning morsels known as microlearning are often no more than seven minutes and should last no longer than two to five minutes. It should allow the student to accomplish a particular goal or objective throughout this period of time in the classroom. In addition, changes in various sectors such as the workplace industry including education are transitioning from a traditional approach to a modern approach. Due to the affect of cellphones, online communities, and the quick growth of information collection from search engines, attention spans across generations have decreased (Halbach & Solheim, 2018).

Several studies regarding microlearning have been conducted continuously in various fields due to its influential trends in the learning industry. Dolasinski & Reynolds (2020) studied the use of microlearning as a new learning model in the workplace such as hospitality. The findings showed that using this learning snippet had numerous advantages, including being affordable, having speedy information delivery, and being useful for in-service business applications. Moreover, Wang et al., (2020) reviewed literature systematically to ensure the efficacy of microlearning in enhancing individual self-care capability such as monitoring daily medicine intake. The scoping review of health professions education by De Gagne et al., (2019) suggested positive effect towards microlearning as a teaching approach to help health professions students gain knowledge and courage in completing procedures, remembering information, studying, and participating in collaborative learning. Hanshaw & Hanson (2018) studied a mixed method research of leader's perceptions towards microlearning for professional development on the job. Moreover, several surveys conducted by the Organization Learning Association, showed that there was a 12% change in the cost structure for employee development and training. Hence, companies must provide new breakthroughs to continue to carry out training while reducing operational costs, thus microlearning answers all these challenges. The inductive analyses mentioned that microlearning is useful due to the flexibility in saving times, maintaining leader's presence, building team cohesiveness, understanding learning needs, providing individuals learning opportunities, and making it easy for participants to use technology.

Furthermore, some studies on microlearning in language learning have also been carried out. Hosseini (2020) found that self-regulation of students was improved through flipping microlearning-based EFL. The participants became aware of their learning process, played more active role in the classroom, and developed their autonomy and self-regulated learning, enjoyed and more engaged in the learning process. A research that studied the principles of teaching English Reading by Zhou (2021) added the teachers should fully utilize the benefits of microlearning platforms, such as high efficiency and interest-led guidance to increase the effect of teaching reading. The teaching of English reading on the microlearning platform should be guided by the ideas of autonomy, honesty,

interest, and cooperation. Tolstikh et al., (2021) argued that microlearning in teaching English to engineer students improved their language level gradually. Additionally, the final summative examination of the course showed that almost all of the students had improved their language skills. Eventually, (Cunha et al., 2020) asserted that flashcard as microlearning tool in ELT expanded children's vocabulary, improved their pronunciation, and stored words in long-terms memory. Thus, microlearning as a method is closely related to online learning that uses electronic and internet-based technology (ICT) for learning purposes. Both teachers and students benefit from this method because increasing information exchange, saving time and money, and accessing content anywhere and anytime easily (Imran, 2022; Aswad et al., 2022; Nurhayati et al., 2022).

The use of microlearning in EFL learning is presented in various forms of MLOM. For example, video which allows someone to understand easily factual information and language features in speaking English teaching conducted by Nazarov (2023). Previously, Nasution (2019) used videos from the Youtube application as MLOM in procedural text learning. Videos on YouTube have various levels ranging from beginner, intermediate to advanced levels which can be used as media for learning English, especially when identifying and making procedural texts. Apparently, not only that, video as a learning medium also has a good influence on non-English majors students in ELT. This conclusion is backed by the study of student quiz answer sheets, student impression surveys, and other remarks regarding the content posted in the remarks on the YouTube section (Adisti, 2022). In speaking and listening skills, Yoestara and Putri (2018) concluded that podcasts as learning MLOM that can function effectively and provide many benefits in learning speaking and listening for English as foreign language students. A study recommends university teachers to integrate professional-based podcasts as learning media with technical university students to improve students' listening and speaking skills, provide them with new vocabulary in the educational process, encourage interaction with the engineering community and familiarize students with independent learning outside the classroom (Chaikovska et al., 2019). In addition, research in (2021) conducted by Syahabuddin & Rizqa indicates that podcasts help students improve the listening skills of respondents. The mean result

of the participants' pre-test and post-test increased from 36.3 to 63.3, which serves as proof of this. Overall, this study demonstrates that using Podcasts can help people improve their English listening abilities.

Website-based learning is one of the resources for online learning.. Nevertheless, this English learning and teaching web-based is still limited in the context of microlearning. Despite this, every web-based learning perspective has recently been a hot topic of discussion, from the pandemic's effects to the rapid development of technological advances in the twenty-first century. Many researchers discuss web-based optimization in teaching and learning activities. Bashori et al., (2022) said that students' fear while speaking might decrease with web-based language learning. Speaking in front of websites with automatic voice recognition made the participants less anxious than speaking to peers or live audiences. An experimental research revealed students which used vocabulary learning webpages got higher vocabulary improvement (Aswad et al., 2022). Higher motivation and levels of student involvement can result from the use of web-based learning in the classroom, such as webquests (Irzawati & Hasibuan, 2019). Unfortunately, previous studies have tended to focus on application, benefits, teacher and student perceptions rather than the development of microlearning teaching materials by using websites as learning activities and material storage that can be accessed by students whenever needed.

Moreover there are many researchers who designed and developed English learning materials for several English skills using technology. Yang et. al (2020) revealed the authentic and meaningful learning opportunities of digital storytelling. It fostered the students' speaking development of becoming proficient English speakers and creative thinkers. Nevertheless, Kizi (2022) investigated an English book that needed to be repaired because it did not apply the latest patterns of communicative teaching and learning and needed to include authentic texts from real environments in order to assist students in producing and generating language in real life. Accordingly, the computerized approach derived from the ADDIE Model assisted language teachers in fostering students' success in reading and listening comprehension by allowing their pupils to identify their own errors and save time (Alodwan & Almosa, 2018). Meanwhile, the effect of audiobooks on EFL

learners' reading development in terms of fluency and motivation has positive effects on students' attitude (Tusmagambet, 2020).

Another effect of reading materials was mentioned by Nambiar et al. (2020), particularly for local culture-based reading materials, that the utilization of regional culture-based programs has an impact on the development of the student's reading, writing, listening, and speaking skills in English as their self-confidence develops. In Fact in some research, English textbooks lack higher order thinking skills (Atiullah et. al, 2019). Furthermore, in research by Noho et. al in (2018) learning English for vocational schools, in this case, the computer major, there is no content for the computer networks department, mostly provided General English. However, the English reading resources for junior high school pupils are not expressly discussed in this study.. Hence, additional studies that incorporate higher order thinking skills into web-based English reading microlearning materials need to be conducted.

Additionally, critical thinking is important for learning to read. Critical thinking is essential for enhancing achievement and performance in all aspects of instruction, particularly reading activity, according to Heidari (2020). Besides, studies revealed that by exposing students to a variety of assignments, they were able to increase their reading comprehension to varied degrees and strengthen their critical thinking skills (Arifin, 2020). The ability to process information effectively and thoroughly enough to make wise decisions is improved in those who employ critical thinking (Mohseni et. al, 2020). While Din (2020) came to the conclusion that critical reading entails responding to what is read critically. It is the process of connecting what you read to your own values, attitudes, and standards. Thus, the researcher incorporates critical thinking abilities into English reading materials for junior high school pupils in the seventh grade.

Considering some prior studies, there is still limited research on developing or designing English reading microlearning materials using web-based for seventh graders of junior high school students. The purpose of this study is to develop microlearning resources for English reading that incorporate web-based critical thinking for students attending junior high schools in the seventh grade. The

researcher primarily created reading materials in English. The findings of this study show that microlearning is extremely pertinent to students' demands in this quick-paced digital world. The part of this paper is divided into five sections there are introduction, literature review, methodology, results and discussion, and conclusion. The results of this study are not only present data, but also produce a product in the form of English reading microlearning materials for seventh graders that use web-based.

1.2   Research questions

The primary research topic in this study was broken down into three sub-questions, which are listed in the section below.

Main research question:

How is the design of web-based English reading microlearning materials infused with critical thinking skills for seventh graders?

Sub-questions:

1. To what extent are the existing English reading materials for seventh graders integrated with microlearning infused with critical thinking skills?

2. How are the procedures of designing web-based English reading microlearning materials infused with critical thinking skills for seventh graders?

3. How is the design of web-based English reading microlearning materials infused with critical thinking skills for seventh graders?

4. How are the readability and employability of web-based English reading microlearning materials infused with critical thinking skills for seventh graders?

1.3   Objectives of the study

1. To reveal how far the existing English reading materials for seventh graders integrated with microlearning and infused with critical thinking skills

2. To describe the procedure of designing web-based English reading microlearning materials infused with critical thinking skills for seventh graders

3. To develop web-based English reading microlearning materials infused with critical thinking skills for seventh graders

4. To examine the readability and validity of web-based English reading microlearning materials infused with critical thinking skills for seventh graders

1.4 Scope of the study

This study concentrates on creating web-based microlearning content infused with critical thinking for seventh-grade students in junior high school, with a focus on English reading materials. The researcher utilized a microlearning approach incorporating MLOM (MicroLearning Object Model) videos for pre-reading activities, infographics for during-reading activities, and quizzes for post-reading activities. These MLOM resources will be accessible through a single learning website. The development of English reading materials adhered to the *Kurikulum Merdeka* and aligned with the activities outlined in the *Profil Pelajar Pancasila*.

1.5 Significances of the study

The main purpose of this research is to generate valuable insights that can enhance the future quality of English language teaching and learning. There are two significances:

1. Theoretically; all English teachers and educators in junior high schools are directed to gain the results of this research. Theoretically, this study provides the development of microlearning website-based characteristics and the philosophy behind critical thinking skill descriptors;

2. Practically; the findings of the study should be essential to institutions, other researchers, students, and English teachers. This study will help English teachers design classes that are specific to their students' requirements. Students may be able to pursue their field of study as a result. This can be

used as a guide for other researchers conducting related research and educational institutions to improve teaching standards. However, observations on a larger scale still need to be done;

1.6 State of the Arts

Microlearning is one of the most effective and widely used teaching methods in the twenty-first century. Recently, a number of studies detailing the benefits of microlearning in different circumstances have been published. Microlearning has been the subject of extensive research in many different domains. The research has also explored the application of microlearning in language learning. Many teachers struggle greatly with the mismatch between teaching and learning qualities. Additionally, students who are digital natives are the target audience for language learning, and the presented content is outmoded, particularly in terms of reading proficiency.

In addition, critical thinking skills are unavoidable nowadays, thus they need to be integrated into any subject, including English. The incorporation of infusion in English reading materials will contribute to enhancing students' life competencies, particularly in the context of the 21st century. Another problem is that not a few English reading materials for grade 7 have not been infused with aspects of critical thinking skills, whether in instructions, types of text, types of contexts, reading topics, or reading exercises.

Numerous prior studies have incorporated technology into the educational process. However, they did not specifically focus on microlearning and the integration of critical thinking skills. Conversely, there are those who have integrated critical thinking skills but still use printed learning materials and do not yet have important elements in microlearning such as teaching materials that have not been separated into small pieces, learning duration of more than 2-5 minutes, access to reading material that is not flexible and has not adapted to the latest curriculum or international standards such as *Kurikulum Merdeka* on national standards and CEFR on international standards.

Thus, this research is intended to meet the needs of the times, namely designing and developing English reading materials required by students nowadays and in the future. The novelty of this research is the products of websites-based and critical thinking skill infused English reading microlearning materials for seventh graders as well as the procedures of its development. Then the learning objective materials (LOM) such as videos, infographics, and quizzez will be placed on a website page that can be accessed in onsite and online learning (blended learning) by students and teachers. Additionally, the researcher aims for these reading materials to equip students with the ability to navigate novel situations and adapt to various life circumstances, both within the educational setting and beyond it, to bolster their future professional pursuits.

1.7   Definition of Key Terms

The study concerned with designing website-based English reading microlearning materials infused with critical thinking skills for seventh graders which include the following terms:

1. Website-based learning; It is a mode of education that utilizes a website as a platform to host all the Learning Object Models (LOMs) created. Depending on the curriculum's needs, it can manifest in two ways: (1) pure online learning, where the entire curriculum and learning process take place online, without any face-to-face interactions between the instructor and students, or (2) a hybrid approach, where half of the instructor-student interactions occur online, and the other half takes place in a physical classroom setting. Web-based learning can either complement traditional courses or be fully integrated into a curriculum to form a comprehensive course (Zheng, 2008).

2. English reading materials; reading material is anything produced for the purpose of being read. This research will develop English reading material. The term "developing materials" encompasses all the actions taken by educators or practitioners involved in creating or utilizing materials for language learning purposes.. These steps include evaluating, changing, designing, making, using the materials, and conducting research. This

applies to every skill in language learning and every structured element of learning, such as activating schemata, content, exercises, assignments, and assessments. Ideally, these cycles should be carefully considered and coordinated when developing language learning materials (Tomlinson, 2012). The typical reading materials entail giving students a set of questions that they can apply to any text. The questions are designed to help students develop the most crucial reading abilities, including anticipating, identifying each paragraph's primary concept, determining the author's aim, and critically analyzing the text's content (Rhalmi, 2017).

3. Microlearning; Microlearning is a educational strategy in which microcontent is presented in a macro activity. The learning objective material (LOM) content is divided up into manageable chunks and provided in a range of media formats. Short content is used to provide information, enabling pupils to recall and absorb the subject more quickly. Microlearning has independent study units that the learner can access anytime, anywhere, whenever they need and many times as necessary. Tipton (2017) provided microlearning design will need to take into account people's desire to learn at any time, anywhere, giving them control over their own learning course. Microlearning is characterized by its speed, simplicity, and engaging nature. The concept of microlearning involves brief and focused learning activities, encompassing various elements such as content presentation, review, practice, reflection, behavioral prompting, performance support, goal reminding, persuasive messaging, task assignments, social interaction, diagnosis, coaching, management interaction, and other related learning approaches (Thalheimer, 2017). The characteristics of microlearning are addressing a single performance-based on objectives, leveraging the existing content, following the minimalist design trend, delivering short bursts of learning, using a variety of formats, adhering to a mobile-first design, and providing intuitive access (Katambur, 2019).

4. Critical thinking skills in English classes; According to Facione (2000), critical thinking is a cognitive process that involves self-correction, utilizing cognitive abilities to form judgments and improve their accuracy. Sternbery

et al. (2007) further describe this mental activity as encompassing deliberation, judgment, and reflection. In essence, critical thinking is a cognitive process that self-adjusts and employs the mind to arrive at logical conclusions.

5. Characters of junior high school students; In Indonesia, all citizens between the ages of 13 and 15 are obligated to complete three years of junior high school or an equivalent educational institution. These junior high schools are overseen by both governmental and private entities. The control of public junior high schools that were previously under the Ministry of National Education was transferred to district or city administrations following the implementation of regional autonomy in 2001. The Ministry of National Education now primarily serves as a regulatory body for national education standards.

6. Junior high school students; are distinct in cognitive and social traits compared to elementary students. A comprehensive understanding of these traits can greatly aid teachers and parents in enhancing the learning experiences of students at this age. With appropriate teaching strategies, junior high school students can thrive and achieve maximum learning benefits while addressing any learning difficulties they may encounter (Pennington, 2009).