

CHAPTER I

INTRODUCTION

1.1 Background of the study

In recent years, the researcher has become increasingly interested in critical thinking and Microlearning which are the foremost aspects in the 21st century era due to these aspects engage students who are millennial generation to be more actively in learning. "Microlearning" or "bite-size learning" is the current educational trend that has been in use since 2005 at an Austrian conference and has no clear definition but is strongly related to computer learning (Hug, 2010; Torgerson, 2016). Influencing each other, micro-learning is closely related to the following concepts; microcontent, social software, Web 2.0, informal learning, Personal Learning Environment and work-based learning (Giurgiu, 2017). Federova et al. (2022) discovered that microlearning can be an excellent supplement to traditional learning since it uses information technology to extend the learning process outside the classroom.

It is generally accepted that microlearning can be easily defined by its name, which refers to the provision of "bite-size" information. Because the entire educational process is divided in small chunks that usually taken longer than a few minutes. Hence, microlearning is considered as the solution of the challenges that the digital native learners. microlearning appears to be one method for dealing with rapidly changing information (Allela, 2021). Simultaneously, it provides the ability to build content and organize the learning process in small units and phases, with a structure determined by the needs of the learners (Buhu, 2019).

Giurgiu (2017), because microlearning is always internet-based, you can access it from your smartphone, tablet, or computer. Allela (2021) argued that one of the microlearning objective materials that can be used on a variety of platforms, including desktops, laptops, computers, tablets, and smartphones are interactive parallax-based scrolling is short-HTML. In addition, Leong et al. (2020) examined the progress of microlearning in 476 relevant papers published between 2006 and 2019. Microlearning is an important new and rising worldwide field with writers, connections, and funding sponsors from all over the world. These advantages are especially important in the post-pandemic learning contexts of distance, online, and blended learning, where learners must be self-sufficient (Iskandar, 2021).

This study looked at Phase E or Grade 10 senior high schools as a starting point for introducing and implementing microlearning in English language learning and teaching. Reading is one of a valuable skill in an academic setting because it is closely linked to the literacy development. However, Indonesian students' reading levels remain low. According to the 2019 national reading index (Solihin, Utama, Pratiwi, & Novirina), the reading literacy level of Indonesian pupils in Indonesian text is low. The Indonesian Ministry of Education conducted the national reading index to examine Indonesian students' literacy levels.

The PISA 2018 reading score for Indonesia is 371. (OECD, 2018). Because the average PISA 2018 score is 453, this score is considered below average. PISA is an international assessment of 15-year-old students' ability to apply their reading, mathematics, and science knowledge. The reading material

for both the national reading index and PISA was Indonesian text. The reading level in Indonesian was discovered to be the same. According to Dahliana (2016), despite having learned English, the majority of Indonesian students still do not understand various English texts. According to Jayanti (2016), EFL students continue to struggle with reading English text. The difficulties are in the text's vocabulary, syntactic, and semantic analysis. All of these research findings indicate that Indonesian students continue to struggle with reading comprehension.

However, a shift in the English language learning process is required to enable students to use digital learning materials. This relates to Learning Achievement (CP) in *Kurikulum Merdeka* for Phase E, Grade 10, at the Senior High School level, by creating learning materials from a variety of texts, such as narratives, descriptions, procedures, expositions, recounts, and reports, whether printed or digital, including visual, multimodal, or interactive texts. Olivier (2021) proposed concrete recommendations for increasing student engagement through the development of microlearning objects based on self-directed multimodal learning. Using multiple modes to deliver content is referred to as multimodal. Learning materials are an essential component of English language instruction.

Due to the critical functions of learning materials, it is critical to continuously develop them in accordance with current trends and learner needs in the context of global development for example, Zhou (2021) investigated the principles of English reading in stimulating learners' interests. By bridging the gap between formal and informal learning and presenting a case study of a

microlearning scenario, microlearning can contribute to lifelong learning (Fang, 2018), we argue that Web 2.0-enhanced microcontent and microlearning provide a viable solution to today's fast-paced and multitask-oriented patterns of learning and working. These findings show that the microlearning approach has the potential to support English reading lessons in senior high school.

Moreover, 21st-century skills are considered mandatory for students in senior high school in order to compete in global competition. As a result, critical thinking is one of the potentials 21st-century skills to be infused into English-language reading learning materials. According to Tebelinejad and Matau (2012), critical thinking, a 21st century skill, has gained prominence in the field of education in recent years in order for students to be 21st century skilled citizens. This statement is supported by the purpose of Curriculum *Merdeka*, which is to provide critical thinking as a 21st century skill in the teaching and learning process. Students must learn to think critically and apply their critical thinking skills in real-life situations. Discovering English learning materials, especially activities or exercises that are relevant to teachers' and students' needs and incorporate critical thinking skills as cross-curricular competence, remains a challenge.

On the other hand, English teaching-learning activity faces significant challenges in addition to government regulations that have been changed more than twice during the pandemic Covid19 and teacher capacity to accommodate new curriculum instruction. However, the process and learning outcomes were still far from what was expected, so the government re-issued the Decree of the

Minister of Education, Culture, Research, and Technology No. 56 of 2022, Guidelines for Implementing the Curriculum in the Framework of Learning Recovery (*Kurikulum Merdeka*), which is currently used by only 6448 high schools, implying that many high schools are still implementing *Kurikulum 13*.

However, the new regulation mentioned above has left teachers perplexed as to how to implement it in the teaching and learning process. Even the government has made an effort to train teachers in order to improve their capabilities, but it is still insufficient. Aside from that, teachers struggle to identify and select appropriate learning resources for their teaching materials to be delivered to their students. The availability of learning resources assists students in improving their learning processes. Learning resources should be able to assist both teachers and students in the teaching-learning process in highly evolved educational settings. Furthermore, implementing curriculum *merdeka* necessitates the advancement of learning resources and learning materials in order to fit the learning achievement (CP) and the flow of learning purpose (ATP). each subject, including English subject.

As a result, learning object materials appeared to be a promising solution to this problem because they provide convenience for both educators and learners. Learning object material can be used for English reading learning materials and the infusion of critical thinking skills. Learning object materials facilitate a simple and straightforward teaching-learning process. Learning Object Material (LOM) or Learning Object refers to the organization of teaching material into the smallest aspects of a specific subject (chunking). Experts define learning objects as teaching materials that are relatively specific

and small parts of a specific material that are used to convey material. Wiley et al. (2004) demonstrated that learning objects are modular digital learning materials. Sosteric and Hesemeier (2002), as well as (2004), support these assertions by demonstrating that learning objects, defined as digital materials with pedagogical merits to aid the teaching-learning process.

Falloon et al. (2010) conducted research on learning objects and the development of students' key competencies. Urrego and Cecilia (2019) demonstrated that virtual learning objects could promote specific reading strategies in English. These virtual learning objects, which include learning objectives, learning materials, and learning topics, are used to tailor to the needs of students. While Kartika (2022), revealed seven stages in the development of learning object material such as; Video, presentations, PDFs, animation, infographics, gamification, and quizzes were among the learning object materials proposed. According to a study presented by Litzler et al. (2012), learning objects are worth developing because they can be used by students to advance their learning progress. Meanwhile, Reigeluth and Nelson (1997) defined learning objects as the tiniest components of learning media. Learning objects are defined as any digital materials that can be reused to support the learning process.

Furthermore, microlearning is an approach to teaching and delivering learning content in small chunks with a specific purpose. Allela (2021) agreed with this statement because microlearning appears to be one method for dealing with rapidly changing information. In addition, Hug (2005) adds microlearning is defined as a short effort, operational expense, degree of time consumption,

measurable time, and subjective time. Influencing each other, micro-learning is closely related to the following concepts; microcontent, social software, Web 2.0, informal learning, Personal Learning Environment and work-based learning (Giurgiu, 2017). It means that Microlearning can make the learning subjects easy to understand and memorable for a longer period.

Furthermore, Gona et al. (2018) discovered that the microlearning group demonstrated approximately 18% better learning than the traditional group after evaluating both groups and obtaining findings. This finding supported by the research finding of (Park & Kim, 2018), indicated that the micro-learning content development method presented in this study is effective in terms of content development efficiency. Microlearning allows learners to gain new knowledge or skills just in time to satisfy their urgent needs in this fast-changing world; it can also assist work-based learners in completing a specific, concrete job.

Allela (2021), some microlearning learning object material that can be used include: First, microlearning videos are ideal for quickly teaching a specific skill or concept or use them as reference material that can be accessed repeatedly. The use of videos to facilitate learning is claimed to promote learner autonomy, raise motivation, and enhance their learning experience (Albó et al., 2015; Beheshti et al., 2018; Olivier, 2019). Second, an interactive video is a popular form of media used to drive learner engagement and employee performance. The Third, interactive presentations can be used to create interactive presentations that infuse games, videos and quizzes. Fourth,

Interactive PDFs, commonly referred to as iPDFs, are gaining use as quick and handy resources that are ideal as microlearning objects.

The Fifth, Animation provides a medium that can combine both description and exposition in a narrative context in order to “visualize dynamic phenomenon that is not easily perceptible, impossible to realize in practice or is inherently visual and can enhance a learner’s understanding of both concrete and abstract concepts” (Betrancourt& Chassot, 2008). Sixth, infographics are visual and textual representations of complicated ideas. The seventh is gamification. Gamification attracts learners because it makes learning enjoyable and includes the rewards and recognition that we all enjoy! This strategy, when combined with microlearning, provides learners with a "bite-sized" Gamification experience. Social media networks like Facebook, LinkedIn, Twitter, and WhatsApp facilitate social learning (learning with and from others).

In conclusion, the review of existing literature, more research on critical thinking, learning object materials, and the microlearning approach in language materials development is still needed, particularly on the incorporation of critical thinking as a 21st-century skill in senior high school based on Curriculum *Merdeka* of English Subject for 10th graders especially in reading material. As a result, the purpose of this study is to conduct a research and development study on designing critical thinking-infused microlearning object material of English reading for 10th graders.

1.2 Research Questions

To point the main research objective, the sub-research problems as the followings;

1. To what extent do critical thinking-infused microlearning learning object material accommodated in the existing English Reading material for 10th graders?
2. How are the procedures for designing critical thinking-infused microlearning object material for English Reading for 10th graders?
3. How is the design of critical thinking-infused microlearning object material in English Reading for 10th graders?
4. How is the readability and validity of the critical thinking skills-infused microlearning learning object material in English Reading for 10th graders?

1.3 Research Purposes

According to the problems of research, the purposes of research could be outlined as follows;

1. To explore how the existing critical thinking skills infused microlearning learning object material have been accommodated in the existing of English Reading material for 10th graders,
2. To describe the procedures for designing critical thinking infused microlearning object material of English Reading for 10th graders,
3. To design of critical thinking infused microlearning learning object material of English Reading for 10th graders, and

4. To measure the readability and validity of Critical thinking infused microlearning learning object material of English Reading for 10th graders.

1.4 Scope of the Research

The scope of study of this research is designing critical thinking – infused Microlearning object material of English Reading for 10th graders. Based on the characteristics of text with critical thinking infused English reading, the study focuses on creating microlearning object materials for 10th grade students, such as video, interactive video, interactive presentation, iPDFs, animation, and infographics. It calls for the creation of a set of learning object materials for students in the tenth grade.

Furthermore, using microlearning concepts and principles, this research aims to provide microlearning object materials for 10th grade students in a senior high school context. This study uses the Common European Framework of Reference for Languages (CEFR) as a guideline for designing the English reading microlearning object materials.

1.5 Research Significance

The research has two implications: theoretical significance and practical significance. The following is an explanation:

1. Theoretically significance

This research can be used as the references for someone who wants to do research in designing reading material.

2. Practically,

Aside from theoretical significance, the researcher expects that this research will be useful to students, teachers, and readers.

A. For the students:

Students will be more interested in learning English because they will learn through a microlearning platform, and help students learn how to make reading material enjoyable and interesting.

B. For the teacher:

The findings of this study are expected to be beneficial to English teachers who may use reading materials to teach reading.

C. For the reader

The findings of this study will inform the reader about the designing critical thinking infused Microlearning learning object material of English Reading for 10th graders.

1.6 The Research Key Terms

1.6.1. Critical Thinking

Critical thinking refers to higher levels of thinking that students require in order to think effectively and sensibly about what they want to achieve and what they believe is the best course of action.

1.6.2. Microlearning

Microlearning is a relatively new concept that has been applied in a wide range of learning, didactic, and educational settings. The term "micro-learning" is self-explanatory, as it refers to the delivery of "bite-size" information.

1.6.3. Learning Object Material

Learning object material (LOM) or Learning object refers to the organization of teaching material into the smallest aspects of a specific

subject (chunking) such as: Video, presentations, PDFs, animation, infographics, gamification, and quizzes.

1.6.3 Tenth Graders

Refers to the Senior High School first year students who are commonly 16 – 17 years old teenagers.

