

CHAPTER 1

INTRODUCTION

This chapter discusses the introduction, divided into five parts: background of the study, research questions, purposes of the study, scope of the study, and the significance of the study.

1.1. Background of the Study

Advanced development in technology puts every person in a position to face complicated issues. It also occurs in school, where students' abilities are established following current developments (Rochmawati et al., 2019). For example, in The Ontario Public Service (2016), students are expected to master competencies that demonstrate the application of what they have mastered rather than only skills and knowledge. The competencies cover a more comprehensive range of elements, including cognitive, functional, interpersonal, and ethical skills. Those are then referred to as 21st-century skills, including the competencies needed to cope with evolving societies, diverse tasks, and everyday skills (Acedo & Hughes, 2014). As a result, to address current challenges, learning based on the development of competencies and skills must be established (Scott, 2015).

Many skills can be used to fulfill 21st-century skills, including *critical thinking, creativity, collaboration, and communication skills*, also known as 4C. According to Trilling and Fadel (2009), critical thinking is the ability to analyze, interpret, evaluate, summarize, and synthesize knowledge. On the other hand, creativity is a cognitive ability that allows people to come up with new and beneficial ideas (Karim & Mustapha, 2020). Communication skill is the ability to transfer information while ensuring that the meanings are successfully represented by considering the audience and medium (Ananiadou & Claro, 2009; Katz, 2007). Meanwhile, collaboration skill is defined as the ability to collaborate successfully while also taking responsibility for making the commitments required to attain a

common objective (Hidayati & Idris, 2020). All of those skills have been adopted by the Ministry of Education and Culture of the Republic of Indonesia in order to create the revised curriculum 2013 for Elementary School, Junior High School, Senior High School, and Vocational High School. Thus, teachers should include 21st-century skills in the teaching and learning process because the revised curriculum requires 21st-century skills in the teaching and learning process.

English as one of the subjects in the curriculum should include 21st-century skills in the teaching and learning process. However, when it comes to the English subject, English teachers are under much pressure to produce fluent speakers of the language. That is due to the importance of English in the twenty-first century, which necessitates a wide range of skills to achieve high proficiency levels in the English language (Suherdi, 2012). The descriptions above empower teachers to rethink how they see themselves as effective English teachers in the 21st century. Teachers should encourage themselves to achieve reflection or critical reflection, an action or phase in which an event is recalled, considered, and assessed, ideally concerning greater purpose (Richard, 1998).

At the same time, 21st-century teachers should prepare their students to become literate and independent, so they can access information efficiently and effectively, evaluate information critically and competently, use information accurately and creatively, pursue information related to personal interest, appreciate literature and other creative expressions, and also, strive for excellence. Therefore, from those challenges, teachers have to prepare students with strategies; students have to learn thinking skills through a real-world context, use a newly learned skill in various contexts, develop their capacity through speaking and listening, visualizing and observing, and reading and writing. Students are also required to emphasize the building blocks of higher-order thinking by; building background knowledge, classifying things in categories, arranging items along dimensions, making hypotheses, drawing inferences, analyzing things into their components, and solving problems. They also have to learn from their

experiences, analyze, evaluate, and produce texts across various language modes, and develop multiple literacies through teamwork and problem-solving activities (E-Module CiaPiE, 2020).

As students are supposed to develop multiple literacies, the meaning of literacy should be explained further. Literacy is defined as the ability to recognize, comprehend, clarify, produce, express, and compute utilizing printed and written resources in various situations (UNESCO, 2018). UNESCO (2014) also claimed that literacy is a crucial human right and the basis for lifelong learning. In the twenty-first century, citizens worldwide have learned the use of technology and interact with each other. Because of this, literacy skills increasingly reflect technology use and the abilities necessary to problem-solve, collaborate, and present information through multimedia (Pilgrim & Martinez, 2013). The skill that covers these abilities have been combined under the title "digital literacy."

Digital literacy is not a new thing. According to Buckingham (2016), back in the 1980s, people used to say digital literacy was computer literacy. There were many arguments about this term back then, and it was just poorly defined and delineated. Digital (or computer) literacy frequently appears to be a limited set of skills in contemporary usage that will enable the user to interact easily with technological applications or perform simple information retrieval tasks. This is a functional definition: it defines the basic skills needed to carry out specific operations, but it does not go far beyond that. Now, the term digital literacy has been clearly defined. According to The American Library Association (2021), digital literacy is the ability to utilize information and communication technology to discover, analyze, produce, and communicate information, which necessitates both cognitive and technical skills.

As a result, Because of the influence of the rapid growth of digital technologies, educators must utilize digital literacy as learning facilitators and motivators to prepare students for digital environments (Laksani, 2019). In short, digital literacy has to be incorporated into all aspects of school instruction. To incorporate digital literacy into the learning process, teachers

will need to use digital tools. Various digital tools are available nowadays, such as videos, podcasts, digital scrapbooks, comic strips, digital worksheets, and digital mind maps. However, in this study, the researcher will focus on using a digital mind-map.

Mind Map was invented by Tony Buzan. According to Buzan (1993), Mind Map is an effective graphic tool that offers a universal key to accessing the brain's potential. Mind Mapping is a powerful tool for generating better comprehension in learning and training. Because of its flexibility, it may be used for a variety of purposes in the classroom. Mind Maps (or related ideas) have been utilized for centuries by educators, psychologists, and people in general for learning, brainstorming, visual thinking, and problem solving (Arulselvi, 2017).

Mind mapping is beneficial to students in a variety of ways. It helps in the association of new information to existing knowledge (Buzan, 1991). Rather than rote learning, it forces students to find connections in their head that leads to meaningful learning (Jiang, 2020). In English lesson, mind mapping can be used for assignments and essay writing especially in the initial stages, where it is an ideal strategy to use for thinking. It may also be used to generate, visualize, organize, take notes on, problem-solve, make decisions, revise, and clarify a course topic so that the teacher can begin with assessment activities. A mind map is essentially used to 'brainstorm' a topic and is an excellent approach for students (Arulselvi, 2017).

In the past, people have to make a mind map with a pen and paper. Nevertheless, many websites and applications allow us to make a mind map digitally. Practical but digital mind maps also allow us to add images and videos, with no paper size limit. By using a digital mind map, students will be facilitated in developing ideas and involved with technology.

According to Fadillah (2019), a mind map is a solution for students who need a technique to assist them in the learning process and enhance and grow students' ideas while learning to write. He also added that mind mapping technology makes it simple for students to come up with new thoughts.

As technology advances, digital mind maps are developed to replace manual mind maps, bringing modern pedagogy into the fourth industrial revolution (Jbeili, 2013). Teachers have used digital mind maps to teach a variety of topics. However, digital mind maps in learning English subjects for Junior High School level are still uncommon.

Some research has been conducted regarding the use of mind maps to learn the English language. Based on Miftah's (2010) research, the student's ability to write descriptive text improves by applying the hand-written mind mapping with the proper models created. Similarly, Octaria (2012) had researched students' achievement in writing report text through semantic mapping technique. Nurlaila (2013) also investigated hand-written mind mapping in the learning of fiction. She discovered that hand-written mind-mapping effectively improved students' vocabulary and ingenuity in organizing sentences and concepts in learning writing. For instance, hand-written mind mapping is an effective tool for generating and improving ideas while learning English at school. Also, Suyanto (2015) had written research about the effectiveness of mind mapping in improving students' writing skills, but in this study, the researcher viewed the I.Q. of the students. Those studies are performed using the traditional mind mapping technique.

In 2019, Fadillah wrote a research article about students' perceptions of mind mapping application software in learning writing for college students. The majority of students had a positive perception of the usage of Mind Mapping in learning writing, and they thought it was an effective method to help them organize their ideas in learning writing. Karim and Mustapha from Malaysia wrote the most recent study on perceptions of digital mind maps. They performed a study at the university level about students' perceptions of using digital mind maps to promote creativity and critical thinking in an ESL writing course. From the results, using a digital mind map clearly improves students' creativity and critical thinking while completing writing tasks, as perceived by the respondents. Both of those studies focused only on the students at the university level.

Nevertheless, neither of those research focuses on students' and teachers' perceptions of using digital mind maps in learning the English language for Junior High School. Hence, the researcher would like to investigate teachers' and students' perceptions of digital mind maps in learning English subjects for Junior High School.

1.2. Research Questions

The main research questions of the study will be as follows :

1. What is Junior High School teachers' perception of digital mind maps in learning English subjects?
2. What is Junior High School students' perception of digital mind maps in learning English subjects?

1.3. Purposes of the Study

This research investigates Junior High School students' and teachers' perceptions of digital mind maps in learning English subjects. This study will describe the profile of Junior High School students and teachers based on and Sabbah model (2015) and Lin & Fast model (2012), which has one major section; the use of digital mind maps in English subject. This section has three primary aspects which is used as the theme of the research questions: (a) speed and efficiency, (b) appearance and mechanics, and (c) ontology and concept mapping.

1.4. Scope of the Study

The scope of this study is limited to finding the perception of Junior High School students and teachers on the use of digital mind maps in learning English subjects. This study will focus on the perception of students and teachers who have used digital mind maps as a tool in learning English subjects. This study will cover one major section; the use of digital mind maps in English subject. This section has three primary aspects which is used as the theme of the research questions: (a) speed and efficiency, (b) appearance and mechanics, and (c) ontology and concept mapping, which adapted and modified from Sabbah model (2015) and Lin & Faste model (2012). The result of the study is expected to contribute to the development

of learning materials to enhance students' digital literacy at Junior High School.

1.5. Significance of the Study

This study is expected to become a recommendation for other pedagogical practices and further study implications, especially in the material development of English teaching-learning. The findings of this study are intended to provide valuable input for future researchers on the same issue and provide a good understanding of the topic for the writer. Moreover, the result of the research paper can be used by English teachers as an input in the English teaching-learning process in Junior High School to apply technique using a digital mind map because there has been no research on a digital mind map in the Junior High School level before.

The logo of Universitas Negeri Jakarta is a large, light green watermark in the background. It features a central emblem with a book at the base, two stylized wings or leaves rising from the top, and a flame-like shape above the wings. The text "UNIVERSITAS NEGERI JAKARTA" is written in a circular path around the emblem.

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