

CHAPTER II

THEORETICAL REVIEW

A. The Definition of Digital Reading

1. The Definition of Digital Reading

Digital reading is a reading process that someone does through various electronic devices/technology. This agrees with Nelson (2008) and Liaw & Huang (2014) who state that the digital version of printed texts can be defined as a digital text. It can be read from an electronic device, like smartphone, computer, tablet or any other devices that is used only to read e-texts. Then, Vassiliou and Rowley (2008) added that digital reading has many features, such as search and cross reference functions and also multimedia features. In addition, Manalu (2019) states that digital texts should have make the readers more interested in reading digital texts as an example a different view, color, feature, font, etc. What is more, students can access digital texts from their own phones or tablets anytime and anywhere. It means that it provides flexibility and convenience for the readers to access the reading materials. From the definition mentioned, it can be concluded that digital reading is a process of a reading a text/book that can be done through media such as electronic tools.

2. Digital Reading Competence

According to Pratama et al. (2015), competence is the characteristics that are found out from a certain evaluation. Furthermore, Delfi (2019) suggests

that reading competence is the level of understanding that students have achieved in terms of written text. Based on those theories, it can be concluded that the digital reading competence is an ability of student to read digital texts efficiently according to their level in terms of general context.

One of the aspects to support students' reading competence is the role of teachers. Koiro (2003) states that a teacher should have openings to explore the internet potential technologies for literacy purposes such as experiencing online exchanges and involved in planning for technology that promotes reading comprehension. Brozova (2011) states that the complexity of reading is also the key competences of a teacher. That means that the openness of teachers to technology in this era is very important, especially to support their students to attract interest in reading digitally.

Besides that, competence of digital reading in students is influenced by several things including starting with the openness of teachers in understanding the internet and its use, also the teacher's experience of designing a visual-based technology-based learning.

Therefore, in the process of reading to attract the interest of learners, it will be more interesting to use visual media such as images and animations that can be accessed in digital reading. Manalu (2019) also strengthened this statement by stating that reading digital texts can motivate students more because it is more exciting and comfortable. It also can support students' positive experience in using digital texts in the learning process.

B. Mind Mapping

1. The Definition of Mind Mapping

According to some researchers there are several understandings of mind mapping. First, mind mapping is the way students get and deliver the information from the reading materials easily (Buzan, 2005). It is a technique that can produce an expressive information with visual steps through the process of remembering and connecting (Buzan, 2013). Mind mapping as a comprehensive model of expression that integrates images and words and a unique thought pattern also allows one to think, remember and organize (Wu & Chen, 2018). Because it fosters creativity and encourages learning, mind mapping is seen to be a technique that might be utilized in constructivist language teaching which can be done by hand, on paper, or on a computer (Erdogan, 2008). It can be concluded that mind mapping is a technique of expressing ideas that can be made through hands and paper and computers in the process of making there are images and branches as a form of expressing thoughts.

2. The Purpose of Mind Mapping

There are various benefits that students can feel when applying mind maps (Buzan, 2005). They are as follows:

- a. remembering ideas
- b. making better notes
- c. saving student's time
- d. concentrating

3. The Procedure of Mind Mapping

a. Hand Paper Based

Here are a few steps to creating a mind map. To begin, use pencil colors to add an image or topic in the center. Second, throughout the mind map, use visuals, symbols, codes, and proportions. Third, choose keywords and print them in either upper or lower case. Fourth, each word or image stands alone, on its own line. Then, starting with the middle image, join the lines. At the center, the core lines are thicker, more organic, flowing, and thinner as they radiate outward. The next step is to make the lines equal in length to the word or picture. Then, throughout the mind map, employ a range of hues. Next, establish your own mind-mapping style. Then, in the mind map, pay attention and show connections. Finally, keep the mind map as simple as possible. Here is an example of mind mapping hand paper based:



Figure 1. Mind Mapping Hand Paper Based

b. Electronic Based

There is software that facilitates students or teachers in the process of making mind map, besides hand paper mind map that can be obtained for free and easily. Making mind map in this all-digital era is not only done by using colored paper and pencil, but with the application below students can be efficiently saving paper usage but also maximize the use of digital technology. This is in agreement with Erdogan (2008) who states that paper mind maps consume more time because if the students make mistakes, they should redo it from the start.

1) Canva.com

Benefits of this app are students can get various elements for free and varied that are already available on the website. Students can edit, change writing and add their own elements. There is even a menu to store, students can also use it via the website or download it via play store or laptop. Here is the example of canva.com mind mapping:

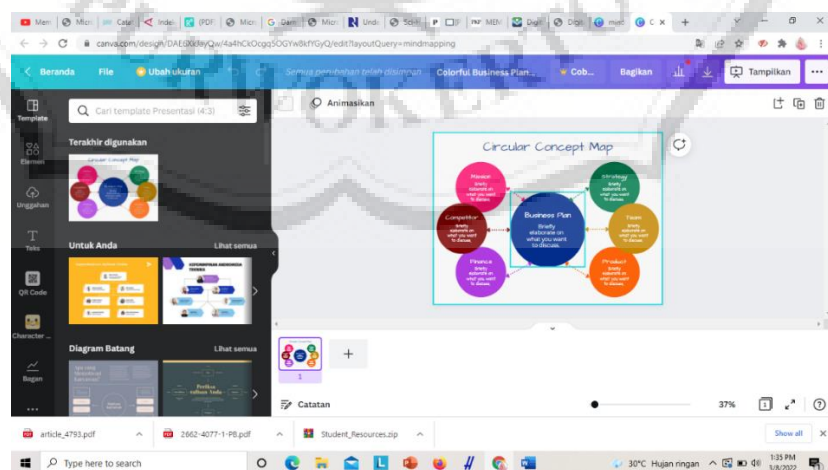


Figure 2. Canva Mapping

2) PowerPoint

This media can be used to make mind map because there are features that include shapes and colors that make it easier for the users to make it. The other benefits include not needing to use internet connection and quite familiar among students. Here is an example of power point mind mapping based:

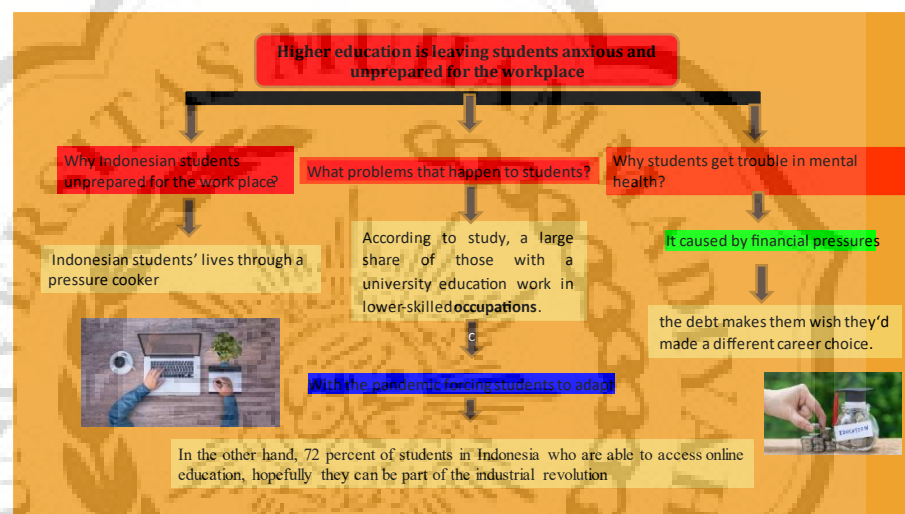


Figure 3. PowerPoint Mapping

4. Benefits of Mind Mapping

The Benefits of Mind Mapping Techniques are:

- a. Maps help authors connect concepts and ideas so they can organize their thoughts better.
- b. Students will be able to find out what to write easily.
- c. It stimulates someone to organize information visually in order to improve students' creativity.
- d. Students' memories are improved as a result of the concepts being examined.

There are also four other benefits of using mind map to assist teaching as follows: (1) it can organize teaching activities and help instructors to provide systematic lessons; (2) it motivates learners to learn and improves learning environments; (3) it is an easy learning method; and (4) it gives students opportunities to express and explore concepts themselves (Rosciano, 2014).

From the theory above, it can be concluded that mind mapping provides many benefits for students. For instance, if a student is able to create a mind map, it means that the student has achieved the sixth level of taxonomy bloom's cognitive level which is the highest one. However, the success of this method depends on the students' activities. Activities like writing and repeating can help students understand the reading materials easily.

C. Teaching Digital Narrative Text Using Mind Mapping

When teachers use mind map technique in order to help students improving their reading skills, several researchers have a unique focus. This technique is considered to encourage learners to use their critical thinking abilities. Advanced readers use their higher-order thinking activities when they read to map their minds. It agrees with Saori's assertion that mind mapping can be used to help learners with reading exercises (Saori, 2020). Because texts are transferred to computer pages and posted through computers, reading on a screen has become an absolute necessity due to quickly growing information technologies. (Divya & Haneefa, 2018).

There are some types of texts reading which are learnt by students. One of them is narrative text which is included in English curriculum in Indonesia.

Narrative text can also be applied into fun learning materials that are applied through screen and combined with mind mapping. So that students are possible to read it anytime and anywhere.

It is important to understand how a text is ideally composed. The reading activity cannot be separated from the comprehension components support behind it, this is supported by Durkin and Dolores (1995) who suggest that reading comprehension has to consist of three main components as follows:

1. Understanding vocabulary: students have to use their background knowledge to be able to extract meaning, explain, and understand the sentences.
2. Understanding the sentence: students have to comprehend the sentences and its relation to the previous one.
3. Understanding the paragraph: students have to use their grammatical knowledge to comprehend each sentence, its sequences, and its relation.

The generic structure of narrative text consists of: (a) orientation which provides information such as who is in the story, its time, and its place; (b) complication, it leads the introduction of the story to its outcome; (c) sequence of events, this section describes the characters' reactions to the problem; (d) resolution, it tells about the characters' solutions to the complication's dilemma; (e) coda, it tells the statement or assigns a moral value depending on what the reader has learnt from the story.

D. Review of Previous Study

The first previous study is by Delfi (2019) entitled “Reading Competency in Digital Era Based on the Learners’ Reading Histories”. The study was aimed to find more about (1) how learners' reading histories are, and (2) how they read reading materials in the digital age. This is a case study in which the participants' reading histories are examined in depth. This study found that students are able to materialize themselves in reading in the digital era because of their competency. They can read online reading materials designed to meet the needs because they are used to paying attention and interacting with texts while reading. This study suggests that learners, particularly young learners, establish a reading style before adopting digital reading materials. What makes this study different with this research lies on the place, population and sample, method, and design of the study. Meanwhile, the similarity is that this research also uses mind mapping to examine its effectivity in digital reading competence.

The second related study is research entitled “The Use of Mind Mapping to Teach Reading Comprehension” which is conducted by Saori (2020). The purpose of the research was to see how employing mind maps affected students' reading comprehension. This was a quasi-experimental study with two intact classes serving as the experimental and control groups. According to the study's findings, after treatment, the experimental group's mean scores (71.76) were higher than the control group's (60.24). The parallels of this research with the writer’s include the use of mind mapping as a technique, the use of a test as an instrument, and the use of narrative text as the material. Meanwhile, the

differences are in digital competency as a variable, location, sampling technique, and the amount of data collected.

The last one is research conducted by Ayu (2014) entitled “The effectiveness of applying mind mapping toward students reading comprehension of narrative material”. The purpose of this research is to examine the efficacy of mind mapping in increasing students' reading comprehension performance, particularly for narrative material, on a secondary school in Bogor. In this study, experimental research was used as a method. The study found that the use of mind maps in reading comprehension lessons for narrative texts is highly recommended. The experimental class gained a higher score (27.14) than the controlled one (17.71). From the previous study above, the differences are on the variable y on the use of digital reading in narrative text, the place, the population and sample, method, and the similarity with the writer's study is on the use of mind mapping as the way to know the effectiveness in reading competence.

E. Conceptual Framework

The following figure shows the theoretical framework underlying this research.

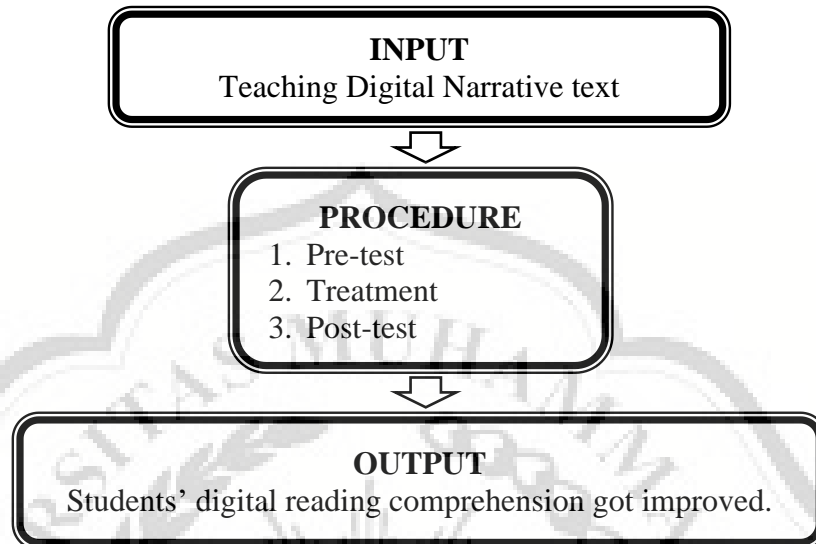


Figure 4. Conceptual Framework

F. Hypothesis

The predicted result is presented in the hypothesis statements below:

1. Alternative Hypothesis (H_a): There is a significant difference of students' digital reading comprehension achievement between students who are taught through mind mapping and students who are taught with Q&A technique. Significance value (2-tailed) <0.05 indicate a significant difference.
2. Null Hypothesis (H_0): There is no significant difference on students' digital reading competence taught by Mindmapping technique and Q&A Technique. Significance value (2-tailed) >0.05 shows that there is no significant difference between the initial variable and the final variable. This suggests there is no meaningful influence on the difference in treatment given to each variable