

CHAPTER 2

LITERATURE REVIEW

This chapter presents a brief explanation of theories that support the research. The theories have related to the use of Digital Storytelling as a medium to increase students' visual memory skills in language learning.

2.1 Digital Storytelling

The traditional media in storytelling learning is teaching through written stories, written books and notebooks used to build the core of the instruction. Nowadays, the technology development made learning media more effective for teaching and learning, one of the media for learning is Digital Storytelling. According to Wu & Chen, 2020, Digital Storytelling has been popular in education since the 1990s by Dana Atchley. Along with technological developments, Digital Storytelling is developed into a media that can help teachers and students develop their creativity in the teaching learning process.

Several experts expressed their opinion about Digital Storytelling, one of them is (Razmi et al., 2014) said that Digital Storytelling is defined as a modern storytelling expression that contains images, music, narration, and it gives a deep and lively impression of the characters, situations and other elements contained in the story. Moreover, Sarica & Usluel (2016), said the definition of Digital Storytelling as "Digital Storytelling is the modern technique that is used in the learning process, and it can make teachers and students increase their skills with the aim of creating a more interesting and effective learning process." It can be said that digital storytelling comes along with technological developments which also help in the education world.

2.2 Digital Storytelling in Language Learning

In learning, the learning media used is very important because it can help teachers to convey material and make interesting activities in class. Digital storytelling is used in the classroom to encourage discussion also helps students internalize values and solve problems through inductive reasoning (Beck & Sitzman, 2019), as Sarica & Usluel, 2016, said, "It has been suggested that teachers

use DST in their teaching practice to help make more abstract or difficult concepts more commonly understood and to facilitate discussion of specific problems". Digital learning also can help students take charge of their own learning and make it fun, it proves on the result of the research by Sudarmaji et al., 2020, is that almost all of the students are interested in the media of teaching and they are active during the learning process by using digital storytelling. It can be concluded that the used of Digital Storytelling can help teachers and students in language learning.

Some researchers said that there are so many positive effects in the use of Digital Storytelling as a medium in the teaching-learning process. "Student interactions in classroom activities that use digital storytelling to enable co-creativity have shown that a specific form of creative collaboration, namely co-creative flow emerged in digital story-producing activities" (Schmoelz, 2018). By using Digital Storytelling in the learning process, teachers and students can increase their skills with the aim of creating a more interesting and effective learning process (Flórez-Aristizábal et al., 2019). Sarica & Usluel (2016) also said that digital storytelling is suitable for students to increase their visual memory. In addition, Digital Storytelling can also increase the creativity of teachers to provide innovative strategies that provide a better classroom environment for language learners.

2.3 Visual Memory

Memory is one of the most important abilities in the learning process. Many experts express their opinions about memory. Tulving (2000) said, "Memory is the neurocognitive capacity to encode, store, and retrieve information." Memory also can be described as the process of retaining and remembering events and past experiences.

Visual memory is one of the memory types and also important in learning process, especially in the language learning process. Binder, Hirokawa, & Windhorst, 2009 as cited by Sarica & Usluel (2016) said that visual memory is a person's ability to remember or remember pictures, scenes, words, and other information that is presented visually. Therefore, it can be concluded that visual memory is one's ability to remember picture or events that presented visually.

2.4 Visual Memory in Language Learning

Another important factor in the learning process is how information is properly stored and remembered. Memory plays an important role in the process of remembering information (Sarica & Usluel, 2016). Nowadays, visual memory is important to develop because visual memory has a role in various everyday tasks, especially in language learning. The memory storage system includes a working memory subsystem that maintains verbal, spatial, and visual information, and it feels very difficult to remember clearly what has been seen. Sudarmaji et al., (2020) said that students must learn and understand the ability to store and remember visual images in memory efficiently to help them learn a foreign language. In addition, visual memory plays an important role in language learning to help EFL students learn a foreign language.

In the context of education, students are required to be able to visualize a stimulus in their minds without receiving any help (Sarica & Usluel, 2016). If the student's skills have not increased, they may have difficulty placing visual stimuli during some operations such as recalling a general view of a story. It is also stated in the relevant literature that visual memory is associated with academic success (Sarica & Usluel, 2016). As children learn to read and write, they generally process images of the words they see through their visual memory. In this regard, the development of visual memory is important to increase in learning.

2.5 The Role of Teaching

Teacher has an important role in teaching the learning process, especially in language learning. Several roles of English teachers include as a motivator, resource, and feedback provider.

- 1) Motivator: the teacher creates the right conditions to generate ideas, convinces them of the usefulness of the activity, and encourages them to exert as much effort as possible for maximum benefit.
- 2) Resources: teachers are available to students when they encounter difficulties. In such situations, students need advice and suggestions that motivate them to develop their abilities.

3) Feedback provider: teacher provides feedback on student's performance according to student's needs.

Although these three teacher roles are specifically emphasized because they are considered important in teaching, the teacher remains responsible for the activities that take place in the classroom and organizes the classroom activity.

2.6 Teaching Steps

Teaching steps are important in the teaching process because it can make the teaching and learning process well-planned. The first step is defined, collect, and decide. In this step, the researcher chooses animal stories video on YouTube and also creates a folder on the desktop that can save all materials. The second step is select, import, and create. Here, the researcher selects the content and text that would like to use for the digital story and shows to students the selected narrative animal stories. The third step is to decide, write, record, and finalize. Here, the researcher determines the purpose and point of view of the digital story. The last step is to demonstrate, evaluate, and replicate. In this final step, the researcher evaluates whether students' visual memory skills are better using digital storytelling or not by comparing the results of the pre-test and post-test

2.7 Learning Materials

Learning materials are important because they can significantly increase student achievement by supporting student learning. As Samuel, 2009, said that teaching materials are alternative communication channels, which teachers can use to convey clearer instructional information to students. They represent a variety of materials that can be used to 'broaden the range of representative experience' of learners in teaching and learning situations. The main materials that will be used in this study on the teaching process is an animal stories text entitled "The Lion and The Goat" and "The Lion and the Mouse". Furthermore, the other main material is an animal short stories video entitled "The Frog and The Snake", "The Foolish Rabbit", and "The Lion and The Rabbit". These videos are used to introduce students to digital storytelling.

2.8 Assessment

Assessment is one of the most important aspects of language teaching and learning. Assessment has two main purposes: to make evaluations and to provide instructional feedback to help students progress. As Tosuncuoglu (2018), said “Assessment has an important role in education and it has a critical role in the teaching process. Through appropriate assessment, teachers can classify and grade their students, give feedback and structure their teaching accordingly”.

The assessment instrument used on this study is a test. The purpose of testing is to provide opportunities for students to show the results of what they have learned. Supported by Sheeba (2017), “Tests are used to examine someone's knowledge of something to determine what he or she knows or have learned”. The test that used in this study is pre-test and post-test; pre-test was held by the researcher before treatment & the aim is to measure the students' visual memory skills before doing the treatment; post-test was held by the researcher after treatment & it is carried out to measure the increasement of students' visual memory after the researcher gave treatment by using digital storytelling in learning.

Education through pictures is one way to gain better understanding than just listening or reading. Levie & Lentz (1982) said that the cognitive function of pictures can be seen from research findings which reveal that picture can make it easier to achieve understanding and remember the information or message contained in a story. Moreover, the test is about 10 questions of multiple-choice question with picture in every number with the type of question: pictures recognition (2 questions), image recognition with a series of different pictures (2 questions), sorting images (2 questions), identify cropped pictures (2 questions), and matching pictures (2 questions). The purpose of this assessment is to measure whether students can remember the stories that have been shown and also to measure the extent to which students' visual memory is affected by the treatment used in learning.

2.9 Studies of Relevant Research

The relevant study, “The Effect of Digital Storytelling on Visual Memory and Writing Skills” by Sarica & Usluel, 2016, analyzed the effect of Digital Storytelling on students’ visual memory and writing skills in one of Turkey’s elementary schools. Here, the researcher measures students' visual memory skills using digital technology; tablets. In addition, students' abilities are also measured through the stories they write. This study shows an indication that digital storytelling can affect a person's memory capacity. Moreover, the research shows that there was significant development at the 0.05 level for both the experimental and the control groups regarding the students' visual memory. Then, there was an increase in both the experimental group and the control group after the implementation process. When researchers compared the results of the experimental and the control groups, no statistically significant difference was observed to the advantage of the experimental group. However, while the difference was not statistically significant, the difference between the results of the control group and the experimental group showed the experimental students' visual memory capacity to a greater degree. It means that Digital Storytelling has an effect on students’ visual memory. At the end of the lesson, the researcher conducted interviews with students in the experimental group and the result was that the students felt more comfortable using tablets and were more suitable to use tablets than using paper pencils to create visuals of their stories.

Another study by Ricci & Beal (2002) entitled “The Effect of Interactive Media on Children’s Story Memory” examined the influence of interactive media on children’s story memory on first-grade children (6–7-year-olds). In this study, students in the control group were given a story using audio-only (traditional way). In contrast, in the experimental group, students were given a story using audio-visual. The study shows that the audio-only group consistently recalled and comprehended poorly. Meanwhile, the results for interactive media were similar to the findings for the television-like presentation. It means that to understand storytelling, students understand better when using audio-visuals, not only using

audio as traditional storytelling medias, and it means that student's visual memory can be increased by Digital Storytelling.

Moreover, (Sudarmaji et al., 2020) also conducted research entitled "Applying Digital Storytelling to Increase Indonesian High School Students' Visual Memory and Writing Skills." As a comparison of the final results of the experimental class and the control class, the Minimum Mastery Criterion (KKM) is 67 and it becomes a benchmark whether students can pass the lesson or not. Based on the results of the study, 100% of students in the experimental class that was taught by using digital storytelling techniques could pass the KKM score (>67). Meanwhile, the control class score shows that 11% of students could not pass and 89% of students could pass the KKM score. Additionally, from the students' questionnaire, the findings showed that the students' learning motivation was very good and created a good class atmosphere. Almost all of the students are interested in the technique of teaching and they are active during the learning process by using digital storytelling. It means that digital storytelling can affect students' visual memory.