#### **CHAPTER II**

### LITERATURE REVIEW

This chapter presents some theoretical foundations of this study. It consists of previous research and literature review of related theory.

### 2. Theoretical Framework

## 2.1 Digital Storytelling Project

Digital stories can be defined as telling stories to inform in general using computer-assisted tools such as videos, pictures, or music (Chung, 2007; Jakes & Brennan, 2005; Robin, 2006). Digital stories are kinds of upgraded versions of traditional stories, as stated by Gregori-Signes (2008). Robin (2006) Categorized the types of digital stories as personal narratives, stories that examine historical events, and stories that inform or instruct people. As Robin (2006) emphasized, personal narrative stories occur, and the importance of the desire to create a unique story is the reason for creating digital stories. It is the type of digital story that contains the memories and experiences of the narrator, in this type of story. The content is about the events of one's life (Cigerci & Gultekin 2017). It is a digital story type obtained by writing the story of its content and converting it into digital form with some multimedia tools.

The second type is stories that examine historical events. It is a digital story in which historical events are taken as the subject. The visuals and voiceovers used to create this digital story should reflect that historical event (Normann, 2011). The

impressive combination of the story part of the digital story and the digital elements makes the audience feel as if they are living a historical event and the time it happened. The last one is informative stories. It is a digital story that aims to teach a particular subject to the audience (Cary, 1998). The content to be taught is narrated, combined with appropriate images, sound, and music, and presented to the target audience (Baki, 2015). In this digital story genre, the subject to be informed or taught becomes more concrete for the audience as it is enriched with visuals and audio (Tsou, Wang & Tzeng, 2006).

The educational context of digital storytelling or narrative stories can be told directly or in textbooks but with the development of time and current technology (Pardo, 2014). Technology has grown ingrained in human life, particularly in education, which employs digital media in learning, such as digital storytelling. To put it another way, digital storytelling is a process that mixes media such as photographs, video, and audio in an application to create a short video narration to create a digital learning environment (Balaman, 2020).

Digital storytelling is defined as telling personal stories or stories using digital technologies to construct meaning (Lambert, 2013). As the term suggests, digital storytelling is distinguished from conventional storytelling by its defining characteristic of applying technology to create digital stories. Digital storytelling artefacts or digital stories are usually made as short films, lasting two to three minutes (Wu & Chen, 2020).

The creation of digital storytelling (DST) is considered an engaging teaching strategy that can impart a wide range of skills (Del-Moral-Pérez, Villalustre-Martínez & Neira-Piñeiro, 2019). According to Robin (2008), creating digital storytelling

projects has given positive benefits for developing language proficiency and digital skills in L2 over the past two decades in a variety of disciplines, and various researchers focus on the university level. It helps EFL students in higher education lecturer provide digital storytelling projects for language skills proposed by Mirza (2020) to create digital storytelling projects in groups to help EFL students overcome work difficulties and make it easier to produce practical and fun language skills.

The rise of digital storytelling echoes the so-called digital turning point in education, namely increasing attention to new literacy methods in the digital environment due to globalization and the advent of communication technology (Mills, 2010). Many scholars have argued that the concept of literacy is central to digital storytelling because digital storytelling combines traditional reading and writing knowledge with new knowledge, such as technology, visual knowledge and information to construct knowledge, thereby providing a means to transform conventional literacy practices through the production of digital stories (Godwin-Jones, 2012; Ohler, 2013; Robin, 2008).

Digital storytelling projects have been implemented in classrooms using a variety of terminologies, such as video project (Foss et al., 2008), digital video project (Havner & Miller, 2011; Nishioka, 2016), digital stories (Verdugo & Belmonte, 2007), multimedia storytelling (Tsou, Wang & Tzeng. 2006), and digital storytelling (Kim, 2014). Researchers have defined digital storytelling differently in terms of their scope and focus. Alexander (2011) has provided the broadest definition of digital storytelling: any stories born digital and published in a digital format.

Chung (2007) elaborated that digital stories are a narrative consisting of different modes, incorporating digital text, imagery, video and audio into the presentation of a computer-mediate multimedia story. For Kajder (2004), digital storytelling is best described as a three to five-minute personal narrative in response to a significant question of the learner's choice. In terms of using digital storytelling for educational purposes, Robin (2008) suggested that digital storytelling is about telling stories with various digital media, such as images, audio, and video. All digital stories combine mature digital graphics, text, recorded audio narration, video and music to present information on a specific topic.

The quality of teaching and learning has improved since the arrival of technology. In 1993, Joe Lambert and Dana Atchley's work at the Center of Digital Storytelling (CDS) at UC Berkeley gave rise to the concept of digital storytelling (DST) (Robin, 2008). Thus, digital storytelling emerged as a powerful storytelling tool. Storytelling is a teaching strategy based on a carefully selected tale to illustrate and clarify the concepts teachers want students to understand (Liu, Tong-Zhou, Lu, & Sun, 2014).

According to Normann (2011), digital storytelling is a short story that lasts about two to three minutes and is told using the author's voice. The emphasis is on the personal element, which can be connected to other people, a location, an interest, or anything else that will give the narrative a personal touch. Meanwhile, according to Benmayor's definition of digital storytelling (Benmayor, 2008, p. 200), it is "a brief multimedia story that blends voice, image, and music."

Storytelling is the uniquely human experience t hat helps convey various aspects of self, others, and the natural or imaginary world inhabited through the language of words (McDury & Alterio, 2003). Recent developments in multimedia technology have digitized narrative, giving rise to a new genre known as digital storytelling (Suwardy, Pan, & Seow, 2013). They added that digital storytelling, a new form of storytelling, occasionally focuses on fictitious narratives, which can have a variety of forms or perspectives depending on many factors.

Using digital storytelling as a teaching method can assist instructors and students in building their social media presence by assisting students as they participate in collaborative learning situations. As a result, students' ability to solve problems and perform well in school can be improved by using digital storytelling (Hung, Hwang, & Huang, 2012; Lowenthal & Dunlap, 2010; Stacey & Hardy, 2011).

### 2. 2 The Benefits of Digital Storytelling

According to Hwang, Shadiev, Hsu, Huang, Hsu and Lin (2016), storytelling is a potent activity that can be highly helpful for language learning since it supports all linguistic abilities, offers chances for social contact, nurtures creativity, boosts motivation, and stimulates the skills required to create stories. Digital storytelling methods include all these advantages and the promotion of numerous technical and non-technical skills related to developing a digital story (Thang, Lin, Mahmud, Ismail & Zabidi, 2014). Additionally, Hwang et al. (2016) found that telling stories through a web-based multimedia system boosts learning motivation, creates more significant opportunities for language practice, and results in higher learning outcomes when compared to traditional storytelling activities carried out using pen and paper.

It creates narratives from images, photographs, illustrations, and video fragments. (Dobson, 2005; Gazarian, 2010) It entails the development of communicative competence linked to constructing narrations from images,

photographs, illustrations, and video fragments. Furthermore, the creation of these stories necessitates using both oral and written language, which necessitates using various talents. Combining these factors makes it a challenging assignment that stimulates creativity (Lambert, 2010), highlighting the expressive power of technology resources (Banaszewski, 2002). As a result, digital storytelling is seen as a valuable tool for fostering communicative competence in the teaching and learning of second languages (Hwang et al., 2016; Kim, 2014; Miller & Kim, 2015).

Moreover, it can be used to improve communicative competence in first language, as it can help to foster literacy development (Ohler, 2013; Shelby-Caffey, Ubaeda, & Jenkins, 2014), to assist and motivate struggling writers (Sylvester & Greenidge, 2009), to promote oral interaction in early childhood education (Papadimitriou, Kapaniaris, & Zisiadis, 2013).

Digital storytelling offers prospective benefits that could aid language learning (Lee, 2014; Shelby-Caffey, Ubeda, & Jenkins, 2014). According to studies (Kim, 2014; Liu, Wang, & Tai, 2016), such activity has been discovered to enhance students' oral proficiency since they must continuously rehearse the narration to record stories using their vocal narrations.

Early studies explored the efficiency of digital storytelling as an individual learning task for language learning, including improving learners' speaking proficiency (Baghdasaryan, 2012), listening proficiency (Verdugo & Belmonte, 2007), and writing proficiency (Tsou et al., 2006). These studies have demonstrated the positive effect of digital storytelling on language development using a quasi-experimental design (Abdolmanafi-Rokni & Qarajeh, 2014) or by comparing test scores during different project stages (Kim, 2014).

The advancement of mobile technology has resulted in the activation of numerous social media platforms such as blogs and SNS messenger. Through omnipresent connectivity and multimedia functions, mobile technology also allows individuals to follow their daily lives in real time and creates opportunities for digital storytelling (Castless, Fernandez-Ardevol, Qiu, & Sey, 2007; Ranieri & Bruni, 2013). Portable innovation and social media have made a difference in numerous individuals and communities to realize the control of their process voices by making and sharing computerized stories (Lambert, 2015). Personal multimedia storytelling using mobile technology and social networking services has been dubbed mobile storytelling by academics (Ranieri & Bruni, 2013).

Authoring tools for digital storytelling are primarily used to construct knowledge, not knowledge transfer (Jonassen & Land, 2000). Digital storytelling enables learners to create, discover, and understand how to use knowledge effectively, rather than simply communicating, remembering and recalling as in the traditional learning process (Stolterman, 2008). Additionally, digital storytelling helps learners connect their in-person learning experiences with creativity (Nordmark & Milrad, 2012).

There is evidence that engaging students in digital storytelling can promote students' motivation (Liu, Tai, & Liu, 2018), academic autonomy (Kim, 2014), and student achievement (Niemi & Multisilta, 2016), along with other effective learning outcomes. Recent research has also shown that digital storytelling can significantly contribute to developing students' higher-order thinking, such as critical thinking (Yang & Wu, 2012) and creative thinking (Anderson, Chung & Macleroy, 2018).

Regarding academic achievement, several researchers have noted a positive correlation between digital storytelling and student outcomes in courses. For example, Hung, Hwang and Huang (2012) compared the performance of two groups of primary school students in a science lesson. He found that those who studied digital storytelling projects demonstrated better academic performance. Science is significantly better than their peers. With similar success, digital storytelling has been applied to other fields, such as mathematics (Niemi, Niu, Vivitsou, & Li, 2018), psychology (Sheafer, 2017) and social research (Rolon-Dow, 2011).

While forcing students to comprehend a concept and express themselves in their unique ways, the digital storytelling strategy significantly improves students' writing skills (Sarcia & Usluel, 2016; Yoon, 2014), listening comprehension (Yoon, 2013), oral skills (Tahriri, Tous, & Movahedyar, 2015) and subject area understanding (Di Blas et al., 2009; Yuksel et al., 2011) have all been shown to be improved by digital storytelling.

Additionally, this instruction encourages students to reflect carefully on the concepts, people, emotions, and events that make up the entire narrative. Digital storytelling can improve oral abilities. These speech abilities include pronunciation, intonation, stress, rhythm, and pacing (Normann, 2011). According to this reality, sharpening listening skills is crucial. With an internet connection, digital storytelling enables students to share their stories with a larger audience and use digital tools to expand their imaginations (Kim, 2014; Liu, Lin, Deng & Tsai, 2014).

Storytelling is a potent activity that can be particularly beneficial for language acquisition. It develops all linguistic abilities, gives opportunities for social contact, inspires creativity, enhances motivation, and stimulates the skills involved in generating stories (Hwang et al., 2016). These advantages are part of digital storytelling practices, as is the promotion of numerous technical and non-technical skills linked with the construction of a digital storytelling (Thang, Lin, Mahmud, Ismail, & Zabidi, 2014).

Based on the study of Jenkins and Lonsdale (2007) on higher institution students' community. Digital storytelling is capable of inspiring deep and reflective learning. Constructinggital stories allows students to connect with other thought processes and receive critiques. The critiques received and given would stimulate the possibility of reflective learning occurring among peers. Through the critiques of the stories, students' understanding is no longer implicit, and they can better reflect on their own and others' understanding.

Robin (2008) sees the benefits of using digital storytelling in the classroom from both educator and student perspectives. He stated that digital storytelling can be an effective instructional tool for educators and an effective learning tool for students. Teachers can use multimedia with a digital story at the beginning of class to serve as an anticipatory set to know the students' attention and interest in the class. The other benefits of digital storytelling for all students: Studies have found that utilizing digital storytelling not only helps to bridge the disconnect between the hightech world outside of school and the traditionally low-tech school setting but also provides several benefits to students that could not be as well achieved through traditional storytelling (Smeda et al., 2014). These benefits include increasing motivation in students, especially struggling readers and writers, and allowing for personalization of the learning experience.

#### 2. 3 Collaborative Digital Storytelling

This work focuses on establishing a collaborative digital storytelling project, recognized as an interesting pedagogic technique that can promote a variety of abilities. Digital storytelling, for example, encourages the use of digital resources required to communicate in the digital era (Robin, 2008) and the ability to express oneself aesthetically (Skouge & Rao, 2009).

Another research found that the influence of the digital storytelling collaborative project first made students uneasy and fearful of technology. However, digital storytelling increased students' trust in technology education (Balaman, 2020). Learning about the advantages and disadvantages of collaborative digital storytelling projects can foster a close relationship where people can exchange ideas and enjoy digital skills (Al-khateeb, 2019). Furthermore, Azis (2020) has shown that using digital storytelling-based collaborative projects dramatically enhances students' writing skills in the setting of Indonesian EFL institutions.

Previous studies have emphasized that digital storytelling is a crucial and effective strategy for collaborative knowledge construction and promotional interaction (Hung, Hwang, & Huang, 2012; Jenkins & Lonsdale, 2007; Theune, Linssen, & Alofs, 2013). Furthermore, combining personal learning experiences, creativity, and collaboration is another benefit of digital storytelling for students (Nordmark & Milrad, 2012). Meanwhile, some studies found that digital storytelling gave many benefits to students, such as student-centred, collaborative learning (Vinogradova, Linville, & Bickel, 2011), oral, specifically pronunciation, fluency, and expression (Castaneda, 2013), creative and critical thinking (McGeoch & Hughes, 2009; Yang & Wu, 2012), vocabulary growth and memorization (Tsou, Wang, & Tzeng, 2006).

Laal and Laal (2012) explained that collaboration is the ability to share ideas and thoughts openly alongside another person and to come up with a combined response, answer and solution about a particular topic. It is essential because of the ability to combine different beliefs, notions, and theories into one concrete explanation and solution that reflects the group's diversity in cooperative learning. Cooperative learning is a crucial aspect of collaboration. It is working with more than one person toward a desired goal. It is the idea of working together or teamwork toward something that can only be achieved with collaboration.

The collaborative approach has been identified as a successful method for teaching students of varying skill levels (Nunan, 1998). Collaboration digital storytelling can aid in the facilitation of a reciprocal learning process in which students take on different roles and learn from one another in order to construct a story together (Liu, Liu, Wang, Chen & Su, 2012). Students can encourage critical thinking and boost their creativity by synthesizing concepts and constructing a shared story (Nordmark & Milrad, 2012; Yang & Wu, 2012).

Empirical research by Tsay and Brady (2010) emphasizes the benefits of collaborative learning as an active learning pedagogy, which speeds things up and increases academic achievements while building positive engagement among colleagues. Tsay and Brady (2010) also recommend the reconceptualization of collaborative learning as a pedagogical concept with the increasing use of digital media technology in higher education today. This study then explores these specifically collaborative digital storytelling projects in helping prospective teachers

with language experience learning, which will give them real live experience in using English. As Banner (2014) points out, collaborative work in conducting DST will enable technological literacy students to help others who have difficulty doing the project.

A digital storytelling project that creates a story in a digital format, either individually or in group, is one type of project-based learning language educators have adopted in their curricula to encourage learners to use and learn the target language. Several studies have implemented digital storytelling as long-term collaborative learning projects in which learners produced a digital story by working with peers over several weeks (Enokida, 2015; Havner & Miller, 2011; Nishioka, 2016).

Collaboration techniques have been combined with digital storytelling to help students work together and create and organize multimedia materials for storytelling (Gelmini-Hornsby, Ainsworth, & O'Malley, 2011; Liu, Tao, Chen, Liu & Chen, 2013). Collaboration techniques effectively teach students of various proficiency levels (Nunan, 1998). According to university success tests, motivation and achievement are higher when students engage in collaborative groups than when they study alone (Johnson, Johnson, Roseth, & Shin, 2014).

According to Kapp (2009), collaborative digital storytelling proj ect has the valuable benefits of improving teamwork/collaboration skills, improving understanding, and improving students' learning experiences, knowledge, and achievement. Moreover, Yang and Cheng (2010) believe that a collaborative digital storytelling project's effectiveness is developing students' creativity, innovation, and communication skills.

Complicated teamwork is required in today's workplaces; interacting effectively is an essential 21st-century talent (Graesser, Fiore, Andrews-Told, Foltz, & Hesse, 2018). Collaborative learning is frequently utilized in school and university settings to foster collaboration and develop in-depth knowledge (Krischner & Erkens, 2013; Nokes-Malach, Richey, & Gadgil, 2015). In collaborative learning environments, individuals in couples or little groups communicate with one another to accomplish a shared learning objective (Dillenbourg, 1999; Roschelle & Teasley, 1995).

Niemi and Multisilta (2016), drawing on Vygotsky's sociocultural learning theory, found that collaborative DST engaged the students learning. The factors affecting this enthusiasm were the digital tool used, movie learning, and collaborative design. In order to build a story together, students can take on diverse roles and learn from one another through collaborative digital storytelling (Liu, Liu, Wang, Chen & Su, 2012). Students can encourage critical thinking through communication and improve their creativity when they synthesize ideas and write a shared story (Nordmark & Milrad, 2012; Yang & Wu, 2012).

However, it should be mentioned that despite all the educational benefits that collaborative digital storytelling could provide, working together does not always encourage students to produce worthwhile work (Gelmini-Hornsby, Ainsworth, & O'Malley, 2011; Kreijns, Kirschner, & Jochems, 2003; Liu & Tsai, 2008). Previous studies (Asoodar, Atai, Vaezi, & Marandi, 2014; Ducate, Anderson, & Mareno, 2011) have supported the positive views of enjoyment and satisfaction when technologies facilitate collaboration. Meanwhile, more research is needed to investigate engagement from theoretical angles and analyze its shifting patterns over time. In collaboration with digital storytelling activities, it has been found that students with limited language work frequently go through several phases of disengagement. Liu, Wang, and Thai (2016) investigate the long-term patterns of engagement in collaborative digital storytelling activities is therefore worthwhile. The data's findings demonstrated that motivation was dynamic, starting low but rising in subsequent stages.

#### 2.4 Digital Storytelling in Education

The advantages of using digital storytelling in the classroom can be listed as follows (Barzaq, 2009; Brewster & Ellis, 1991; Kucukturan, 2004). First of all, young learners love to listen to stories. Since children are prone to listening to stories, it ensures that language is taught in a specific context and that language development occurs in students. With digital storytelling, language learners can easily interact with language and the structure of language in the learning environment, improving students' literacy and listening skills (Cigerci, 2017). Moreover, since children love to listen to stories repeatedly, thanks to the repeated digital stories, the language skills that students need to acquire in language teaching are easily given to students (Brand & Donato, 2001).

The keywords and some grammar structures in digital stories enable students to learn and remember these words and structures (Borneman & Gibson, 2011). New words can be learned in second language lessons through digital stories, and students can learn new words in a story-based context. Digital storytelling is also one of the ways to develop creativity because this process is a journey of discovery (Gakhar & Thompson, 2007).

Digital stories are a helpful tool for connecting and combining children's imagination with their world, in addition to being amusing. Digital stories create a classroom environment where social experiences are shared. It helps children to be self-confident and contributes to social and emotional development (Han, 2007). Furthermore, teachers help students develop positive attitudes toward foreign language and foreign language learning through digital stories. Some teachers claimed that exposing learners to audio materials to teach and improve listening skills is less applicable since several technological advances have been embodied in our students' lives (Al-Johali, 2019).

# 2.5 Previous Study

Several researchers have researched collaborative digital storytelling projects. Kapp (2009) studied improving students' teamwork in a collaborative project-based course. Collaborative digital storytelling project has the valuable benefits of improving teamwork/collaboration skills, understanding, and students' learning experiences, knowledge and achievement. Moreover, Yang and Cheng (2010) investigated the creativity of students' information systems projects. The effectiveness of collaborative digital storytelling projects develops students' creativity, innovation and communication skills.

Gelmini-Hornsby et al. (2011) examined how to encourage children to engage in discussions through Guided Reciprocal Peer Questioning (GRPQ) scripts while drawing together leads to better collaborative digital storytelling. Collaboration techniques have been combined with digital storytelling to help students work together and create and organize multimedia materials for storytelling.

Lee (2014) and Shelby-Caffey et al. (2014) investigated that digital storytelling offers prospective benefits that could aid in language learning. The study explored how the use of digital news stories promoted the development of content knowledge and oral language skills, and digital storytelling has emerged as an innovative practice that allows students deeper engagement with content while encouraging the use of critical thinking and technological skills needed to navigate the ever-changing digital terrain of the 21st century.

Niemi and Multisilta (2016) investigated how students become engaged and motivated using digital storytelling. For example, drawing on Vygotsky's sociocultural learning theory, they found that collaborative DST engaged the students learning. The factors affecting this enthusiasm were the digital tool used, movie learning and collaborative design.

Kasami (2018) examined overcoming difficulties and problems in integrating digital storytelling in learning English as a foreign language (EFL). It is acknowledged that one of the significant challenges that language instructors and students have encountered is needing more digital literacy skills and competencies.

The similarity of this present research with other research is the students' perceptions of collaborative digital storytelling projects. The difference between this research and the other is that some researchers focus on students' perceptions of the effect of collaborative digital storytelling in the classroom. The difference in this research is that the research focuses on another context in the English Education

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Department at an Islamic higher institution in Southeast Sulawesi, teaching English to young learners (TEYL) class, namely making videos and digital storytelling projects.

