

# UCUENCA

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Facultad de Filosofía, Letras y Ciencias de la Educación

Carrera de Pedagogía de los Idiomas Nacionales y Extranjeros

### **The Influence of Digital Storytelling on English Literacy Skills of EFL Learners**

Trabajo de titulación previo a la obtención del título de Licenciada en Pedagogía del Idioma Inglés


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### Resumen

La narración digital (DST, por sus siglas en inglés) es una herramienta que actualmente se considera para enseñar inglés de manera creativa y entretenida, pero no es un instrumento nuevo; ha estado presente desde la década de los 90. Según algunos investigadores, DST se ha vuelto más popular como objeto de estudio por su influencia en las habilidades de lecto-escritura de los estudiantes de inglés como lengua extranjera (EFL, por sus siglas en inglés) a partir de 2008. Esta síntesis de investigación busca determinar los impactos más significativos de DST en las habilidades de lecto-escritura de los estudiantes de EFL mediante la recopilación, evaluación y análisis de veinte estudios. Además, esta investigación examina los beneficios, dificultades y cómo DST influye en las habilidades de lecto-escritura de los estudiantes. Asimismo, intenta analizar la motivación de los profesores en cuanto a la implementación de esta herramienta en el aula. Por lo tanto, los estudios que se tendrán en cuenta son aquellos publicados en inglés, desde 2008 hasta 2022, y estudios relacionados con DST en el campo de la enseñanza. Los resultados de esta investigación han mostrado efectos positivos en los estudiantes cuyos profesores utilizaron DST para enseñar inglés. De hecho, estos estudiantes mostraron una mejora en sus habilidades de lectura (comprensión y capacidad). Además, el uso de esta herramienta mejoró la motivación, gramática, vocabulario, escritura y originalidad de los estudiantes. Por lo tanto, DST es considerada una herramienta que mejora las habilidades de lecto-escritura de los estudiantes y hace que el proceso de enseñanza de EFL sea más fácil, agradable e innovador.

*Palabras clave:* narración digital, habilidades de lectura-escritura, idioma inglés, lengua extranjera, enseñanza del inglés



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### Abstract

Digital storytelling (DST) is a tool that has been considered for teaching English in a creative and entertaining way nowadays, but it is not a new instrument; it has been around since the 1900s. According to some researchers, DST has become more popular as a subject of study for its influence on English as a Foreign Language (EFL) students' literacy from 2008 onwards. This research synthesis seeks to determine the most significant impacts of DST on EFL learners' literacy skills by gathering, evaluating, and analyzing twenty studies. Moreover, this research examines the benefits and difficulties of DST and how it influences students' literacy skills. Furthermore, it also aims to analyze teachers' motivation toward the implementation of this tool in the classroom. Therefore, the studies considered for this research synthesis are those published in English from 2008 to 2022 and studies related to DST in the teaching field. The results of this research have shown positive effects on the learners whose teachers used DST for teaching English. Indeed, these students showed an improvement in their reading skills (comprehension and ability). In addition, the use of this tool enhanced the students' motivation, grammar, vocabulary, writing skills, and originality. Hence, DST is considered a tool that improves students' literacy skills and makes the EFL teaching process, easier, delightful, and innovative.

*Keywords:* digital storytelling, literacy skills, English language, foreign language, English teaching



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## Dedication

I want to heartily thank God for giving me my beautiful family that has supported me throughout my life. To my mother, I want to say that her love and care have meant a lot to me. To my brother, who has been like a dad to me, I want to say that I carry his teachings in my heart. To my father, I want to say that I am truly grateful for his hard work. To my Maco and Max, I want to tell them that I have never felt alone thanks to them. Sincerely, there are no words that can really express my love and gratitude to my family, so I will humbly say thank you and I love you.

Janneth Deleg

## Dedication

First, I thank God for everything; He has given me a wonderful family and kept me alive until now. I want to thank my dad, who has worked hard for our family and supported me all this time. I want to thank my mom, my best friend, for her unconditional love and support and for being there when I needed her the most. I thank my little brother, Jostin, for being my company through this journey and for listening to me even though sometimes I tend to be annoying. Lastly, I want to thank my older siblings, Christian and Edison, for supporting me no matter the distance and cheering me up when things got tough. I will always have you all present in my heart and have in mind every piece of advice you have given me; I love you all and thank you for everything.

Emilce Sigcho



## Introduction

Currently, modern technology has emerged as the most inventive and inspiring teaching tool ever (Ahmadi & Reza, 2018), and thanks to that, the learning of English as a Foreign Language (EFL) has evolved exponentially to levels never seen before. One of those ways to learn English is through digital storytelling (DST). DST is the mixture of stories and technological tools, such as text, sound, animation, video, and image (Dupain & Maguire, 2005). Therefore, DST can be used by teachers to foster the development and/or enhancement of students' literacy skills. By using DST, students can understand the general meaning of stories, enjoy them, and participate actively, improving their reading skills (Huang, 2006). In addition, DST also enhances students' writing skills because, through its use (the creation of stories), they feel motivated to write, improve their spelling and vocabulary, and use properly the internal and external structure of writing (Abdel-Hack & Helwa, 2014). Thus, DST, by being a tool that combines learning with technology, boosts students' literacy skills because they feel captivated, their learning experience becomes more dynamic and engaging, and they are able to express their thoughts freely (Rahimi & Yadollahi, 2017). Clearly, DST is a key instrument that instructors should try in their EFL classes.

Consequently, the purpose of this study focuses on the synthesis and analysis of data found in twenty different studies concerning the impact of DST on the English literacy skills of EFL learners after the implementation of this tool in the classroom. Moreover, this research synthesis will attempt to answer the following research questions:

- 1) What is the impact of the use of DST on the EFL class?
- 2) To what extent does DST influence EFL learners' literacy skills?
- 3) What are the challenges of applying DST in the EFL class?

This research synthesis comprises the following chapters: The first chapter features the background, problem statement, rationale, objectives, and research questions to be addressed in this study. The theoretical framework is covered along with essential concepts and theories in regard to DST in chapter two. Chapter three includes the analysis of twenty studies gathered for this research synthesis. In chapter four, the methods used in this study as well as the inclusion and exclusion criteria are covered. Chapter five addresses the data analysis and results. Finally, the recommendations and conclusions are presented in chapter six.

## CHAPTER I

## Description of the Research

## 1.1 Background

Nowadays, inside and outside the classroom, the learning process has adopted technology as a fundamental tool (Ahmadi & Reza, 2018). Therefore, it is important to take advantage of technology and make use of it for helping students to improve and develop their language learning process. According to Smeda et al. (2014), the improvement of learning outcomes for common and technical education is achieved through storytelling, a fundamental pedagogical gadget. In addition, DST is defined as a story that is created by combining elements of multimedia such as text, sound, animation, video, and image (Dupain & Maguire, 2005). In other words, the combination of conventional storytelling and technology has brought about what is known nowadays as DST.

DST is not a recently created gadget. In fact, StoryCenter (n.d) has provided an explanation for its origin. During the 1970s and 1980s, in the United States, digital technologies offered new opportunities to arts practitioners and educators, who were fighting fervently for the reserve of art to tell many of their stories in the social and political conflict. At that time, a group of artists and media designers from the San Francisco Bay Area adopted digital technologies to empower personal storytelling. Nearly a century later, the San Francisco Digital Media Center was established in 1994, and within a few years, it would serve as the foundation for a seminary called *Digital Storytelling*.

Moreover, DST has been considered a tool that has helped students with their motivation and academic performance (Alismail, 2015). As a matter of fact, Robin (2006) states that teachers have been able to use DST as a new resource that has engaged their students in paying closer attention to classes, has improved current lessons, and has helped students understand abstract content. The results mentioned before have shown that by incorporating DST into the lesson plans, teachers have made classes more dynamic as DST requires the use of technology, and students have accomplished many of their learning outcomes, especially in the area of literacy skills (reading and writing). Not to mention that students can also elaborate their own DST from scratch so that they gain experience researching, using the Internet, analyzing, and synthesizing a variety of content (Robin, 2006). In addition, DST has helped students learn how to actually work in groups by posting their stories on the Internet, where they have learnt to analytically critique their classmates and themselves (Robin, 2006). As mentioned above, DST has become a true learning tool for students since it has helped them in many educational aspects that are fundamental to face real life.

Clearly, the implementation of DST has influenced English language acquisition. In fact, an empirical research by Aljaraideh (2019) indicated that the use of DST to learn English in students of sixth grade was a useful tool because the experimental group (25 students) met the learning goals of the class in a better way than the rest of the students who were taught with a traditional method (25 students). Furthermore, this empirical research expressed that motivation tended to increase through the use of DST. It was definitely a practical tool for teaching and motivating students to learn English. In summary, Aljaraideh's study highlights how the use of DST affects a class in a positive way thanks to the use of multimedia, which makes the information easier to be remembered. Thus, students feel more inspired and energized to learn, in contrast to traditional learning methods.

Nevertheless, DST seemed to have some cons. In a study, called *Information English*, conducted by Kasami (2018), in six courses formed by Japanese students, she states that there were some problems when using DST in EFL education. Some of the problems were that teachers had trouble expressing the proper guidance for effective storytelling, allowing enough time for homework, giving advice for problem-solving, and instructing on copyright and portrait rights. Unfortunately, those difficulties are not the only ones that DST seems to have. As a matter of fact, Gaille (2019) has expressed that when using DST, some teachers might not be patient enough to get their audience; some students need more time than others to really start understanding the message; also, high-quality DST might be quite expensive; and DST might not be considered for all teachers because its execution in the classroom is often long, difficult, and time-consuming. Therefore, the use of DST should be considered carefully when attempting to apply it.

## **1.2 Problem Statement**

Technology is important for the learning process nowadays, so teachers should consider integrating technology throughout the curriculum because students of this generation (digital natives) have a need to know, through real-life activities, how to solve problems and have authentic literacy conversations (Brown et al., 2005). Furthermore, Bell (1998) states that reading and writing are skills that have a link between them since writing in L2 helps students to progress in their reading in L2, and reading helps students to know how to give voice and form to their writings. Also, according to Huang (2006), DST has really been a pillar for students in reading comprehension as it has made them understand the general meaning of the stories, enjoy them, and participate actively. In addition, DST has helped students with their writing skills because its use has motivated them to write, improve their writing skills, and use properly the internal and external structure of writing (Abdel-Hack & Helwa, 2014).

Even though DST has been used in the education field for a long time, not all teachers have considered implementing it in their classes. The reasons for this might be, as Gaille (2019) states, the use of DST could have some difficulties such as the lack of time to share and discuss stories, the limited chances that someone has to captivate the attention of the listener, the challenges presented to acquire quality free DST, and the fact that not everyone can be considered a digital storyteller. However, the previous reasons might not fully explain the real causes why some teachers do not want to use DST with their students. As Dogan and Robin (2008) state, the teachers can be trained in DST workshops, have time and the economical possibility to obtain high-quality DST, but they do not implement DST in their classrooms. This non-acceptance to apply DST in their lesson plan might depend on the educational institution; in private schools the teachers might count on computer labs while in public schools they might not have the same possibility to get access to one (Dogan & Robin, 2008). Aside to the problem that teachers do not want to incorporate DST in their classes, there is also a query about the scholars' point of view on how DST influences the English literacy skills of EFL learners.

### **1.3 Justification**

The query about the scholars' point of view on how DST influences the English literacy skills of EFL learners is essential since technology is part of the lives of many people, and they seem to have adopted it in all aspects of daily life. According to Tamhankar et al. (2019), "we need to recall that if we want to help students reach a high level of capability and competitiveness, we have no choice but to make technology an integrated tool in the field of education" (p. 1168).

There are many ways to learn English, and currently technology has become the most innovative and motivational tool teachers have taken advantage of. In fact, according to Ribeiro (2015), teachers have had to find ways to understand this new technological era that has changed their point of view on society. Basically, "the use of technology in teaching enjoys, motivates, and facilitates the students in learning English" (Anggeraini & Afifah, 2017, p. 83). Among many new technology tools, DST helps students to improve their learning outcomes by using the most recent Information Communications Technology (ICT) tools, which engage students and motivate them (Yoon, 2013). In brief, DST is clearly a very useful tool that mixes learning and technology, giving teachers the opportunity to experience the new technological tools that now are deemed as necessary. In addition, as Rahimi and Yadollahi (2017) have expressed, the use of DST has promoted students' literacy skills since students have felt captivated, their learning experience has become more dynamic and engaging, and they have been able to express their thoughts freely. Clearly, DST is highly considered an important tool in teaching English.

Based on the previous findings, many experts have suggested the implementation of technology as a tool for teaching English and have considered DST a tool that implements both technology and storytelling. Thus, this study is an attempt to make teachers aware of the impact of DST on the English literacy skills of EFL learners so that teachers may consider its application in their classrooms.

## **1.4 Research Questions**

- What is the impact of the use of DST on the EFL class?
- To what extent does DST influence EFL learners' literacy skills?
- What are the challenges of applying DST in the EFL class?

## **1.5 General Objective**

- To determine the most significant impacts of DST on EFL learners' literacy skills

## **1.6 Specific Objectives**

- To establish the benefits of the application of DST in the EFL class
- To determine the characteristics of DST that influence EFL learners' literacy skills
- To establish the difficulties of the application of DST in the EFL class

## CHAPTER II

### Theoretical Framework

#### 2.1 Digital Storytelling

DST first appeared during the 1970s and 1980s in the United States; it appeared as a result of a fight for the preservation of art and was used by art professionals and instructors in order to let people know their stories throughout the social and political strife at the time (StoryCenter, n.d). There exist many definitions of DST stated by different authors, but all generally center on the idea of fusing the skill of storytelling with digital multimedia elements (Robin, 2006). The innate attributes of DST, such as creativity, exploration, and collaboration, make it a natural fit for modern learning theories, particularly Constructivism. Notably, DST proves to be a versatile and effective tool that can be employed within traditional classroom environments and in distance education settings (Karantalis and Koukopoulos, 2022). In addition, Smeda et al. (2014) claim that DST is an effective educational method that can be used to improve learning outcomes in science as well as in general and specialized education.

#### 2.2 Literacy Skills

First, we would like to start by defining literacy and then define what literacy skills are. The literature frequently addresses studies, conceptual frameworks, and methods for teaching literacy (reading and/or writing) without defining these words in detail (Keefe & Copeland, 2011). As a matter of fact, literacy is defined by Gee (2014) as the term *discourse* which, as established by him, is a set of socially acceptable language, thinking, and acting patterns that one can use to establish belonging to a group that has meaning for them in society. In addition, literacy is also seen as a right and not a privilege, and a remarkable number of individuals have been denied the right to it (Lumsford et al., 1990, as cited in Keefe & Copeland, 2011). In order to define literacy skills, we need to go further since literacy skills are part of communication skills. The word *communication* comes from the Latin term *communis*, which means *common* (Sen, 2007). In addition, Sen (2007) explains that communication can be carried out only when we make an effort to communicate in a way that will be understood by the other person; in that way, we will be able to exchange or share ideas with that person and ensure that they can grasp what we say and write. In conclusion, the previous idea essentially pertains to communication skills because they increase personal effectiveness and facilitate networking (Sen, 2007). Moreover, as mentioned before, literacy skills are often described as writing and reading (Keefe & Copeland, 2011), which are considered to be productive and receptive skills, correspondingly.

#### 2.3 Productive Skills

Productive skills, also known as active skills, refer to the conveyance of information that a language user generates in either spoken or written form, and therefore, there must exist the

help of a receipt/receptive person (Golkova & Hubackova, 2014). Moreover, according to Sreena and Ilankumaran (2018), writing and speaking are considered productive skills, and students who are proficient in these areas are to achieve positive results. Furthermore, Sreena and Ilankumaran (2018) state that everyday concepts (wide and varied vocabulary), a broad/open mindset, and articulation are necessary for effective speaking skills. This is essential for creating assurance in the speakers; thus, in this way, they will be able to transmit the idea/message they want to convey.

### **2.3.1 Writing**

Along with listening, speaking, and reading, writing forms part of the four basic language skills and holds the greatest position on a hierarchy scale and only develops after the other three have been learned or gained (Gautam, 2019). Regardless of level, discipline, or learning style, most educational systems around the world view advanced writing as a crucial method and goal of formal education (White, 1986, as cited in Gautam, 2019). It means that all university students, teachers, researchers, and freelance writers must be proficient writers since these are occupations that need the ability to write to be judged on quality (Gautam, 2019).

### **2.4 Receptive Skills**

Receptive abilities are the means by which individuals derive sense from the discourse they observe or hear (Al-Jawi, 2010). In addition, Sreena and Ilankumaran (2018) state that receptive skills are the first step in relation to a communication event; listening and sustained effort are required to hear the sound, interpret it, and create opportunities for ongoing dialogue. Besides, Sreena and Ilankumaran (2018) mention that there exists a lot of reading and listening since it allows students to achieve the stated objective, which is communication.

#### **2.4.1 Reading**

Reading takes place in the context of social behaviors that also include writing, speaking, and listening (Gee, 1999; Street, 2005, as cited in Frankel et al., 2016), as well as endeavors with social, cultural, and historical roots (Cole, 1996; Vygotsky, 1978, as cited in Frankel, 2016). Moreover, the RAND Reading Study Group (2002, as cited in Frankel et al., 2016) defines reading as the procedure of deriving meaning from and constructing it through engagement with written language. Additionally, they also suggest that the interactions between the reader, the text, the activity, and the broader sociocultural atmosphere are also contributing factors to reading comprehension.

### **2.5 Digital Storytelling and Writing**

There has been a noticeable change in how traditional notions of literacy have been seen as a result of the technological communication explosion and globalization (Abdel-Hack & Helwa, 2014), and as a result, the idea of incorporating DST in the classroom was taken into account. The use of DST can help students develop a sense of ownership over the material, give them

a deeper grasp of the text, make it easier for them to remember it for longer periods of time, and help students become better writers (Abdel-Hack & Helwa, 2014). Hence, DST is an excellent application in a foreign setting that improves traditional narrative techniques, straightforward word processing tools, and social software, leading to increased levels of engagement, analysis, and critical thinking skills. It has also been shown to increase motivation for learning and improve English reading, writing, oral expression, and listening comprehension skills (Abdel-Hack & Helwa, 2014).

### **2.6 Digital Storytelling and Reading**

When relating DST to reading we find that DST creates engaging reading content that can make readers enjoy the story presented to them (Mutalib & Shaffiei, 2011, as cited in Anggeraini & Afifah, 2017). Also, DST improves students' reading comprehension (Royer & Richards, 2008) by using multimedia elements, offering contextualization, and promoting active engagement (Royer & Richards, 2008). Moreover, teachers can assist young learners in creating a huge word bank through DST, which is essential to the development of reading abilities and helps young learners become more aware of new words so that they can communicate specific ideas more easily and effectively (Brown, 2001, as cited in Abdul-Ameer, 2014).



## CHAPTER III

### Literature review

#### 3.1 Introduction

This section addresses relevant findings and descriptions of 20 studies selected for this research synthesis. The literature that has supported this endeavor focuses on the influence of DST on the English literacy skills of EFL learners. Thus, these studies have been categorized into three areas: a) The impact of the use of DST on the EFL class, b) The extent to which DST influences EFL learners' literacy skills, and c) The challenges of applying DST in the EFL class.

#### 3.2 The Impact of the Use of DST on the EFL Class

In previous chapters, it has been mentioned that, in addition to the influence of DST upon literacy ability, DST influences other aspects of the EFL class. Therefore, researchers have tried to find out what those aspects are.

Aljaraideh (2019) conducted a study in which the participants were 50 Jordanian sixth-grade students (25 =control group and 25 =experimental group) from public schools. The study aimed to identify the effects of DST on English academic performance. The findings showed that using DST as a teaching strategy provoked significant differences in the experimental group's motivation to learn English and their academic performance, being better than those of the control group.

Likewise, Dogan and Robin (2008) analyzed what effects the use of DST by teachers in their classrooms had on students. The findings of this study were that teachers using DST indicated positive effects on students, such as improved performance and 21st-century skills, increased levels of motivation, and engagement in their students. What is more, Vu et al. (2019) accomplished an investigation in Palm Springs Unified School District, whose findings were that thanks to DST produced in the classroom, students showed their enormous creativity and talent, and DST also helped improve the skills, knowledge, and competencies of 21st-century learning and English language arts.

Following the benefits DST has on an EFL class, Smeda et al. (2014) conducted a multi-site case study in an Australian primary and secondary school. In some classrooms, students and teachers could enjoy innovative learning experiences based on DST. The results of this study were that DST meant a powerful gadget to integrate instructional messages with learning activities to create a more engaging and stimulating learning atmosphere. DST is an important tool for creating a constructivist learning environment based on new principles of teaching and learning. DST, therefore, has the potential to improve students' engagement and educational outcomes.

Moreover, in Yoon's study (2013), 32 South Korean fifth-grade students from a public elementary school participated in a 12-week study experimenting with DST in their English class. The purpose of this study was to analyze the outcomes of using DST in after-school English classrooms on the learners' mindsets and perceptions toward learning English. The findings revealed that DST had a positive effect on fifth-grade students' perspective changes in learning English by helping them gain a deeper understanding of the lesson, leading to their voluntary energetic participation. The findings also showed that DST engaged students in the story content by promoting motivation and interest and building confidence in learning English. In line with the aforementioned argument, Mirza's study (2020) demonstrated that the majority of 20 second-year student-teachers opined that the use of DST was entertaining and scholastic, so they were enthusiastic to try it again. Their confidence, pronunciation, organizational, technical, and research skills, and ability to deliver presentations improved. Most participants found DST's social aspect extremely rewarding and enjoyed sharing their work online.

The literature presented in this section established that DST had a positive impact on EFL learners. Furthermore, not only literacy skills were improved, but also other aspects such as students' motivation, engagement, performance, and 21st-century skills.

### **3.3 The extent to which DST influences EFL learners' literacy skills**

Yamac and Ulusoy (2016) conducted a study with third-grade students from rural primary schools. Their goal was to determine the effects of DST on students' writing skills. In this study, before and after the teaching procedures of DST, the students' writing performance was measured. The findings showed that DST improved students' rules related to ideas, structure, word choice, sentence fluency, and writing quality. Similarly, DST enhanced story elements and story word counts. In another study by Goestina et al. (2022), 30 eighth-grade students participated, and the findings revealed that after using DST, the learners' story-writing skills improved significantly. In a similar vein, a study by Castillo-Cuesta et al. (2021), in which 101 Ecuadorian college students participated, showed that after applying DST, their writing abilities improved significantly too, particularly in terms of grammar and vocabulary. Furthermore, because the participants were more engaged in activities that allowed them to demonstrate their knowledge when designing narrative projects, *Storybird* (an app that allows learners to create their own DST) was perceived as a helpful strategy for developing their EFL writing skills.

Equally important, a study conducted by Anggeraini and Afifah (2017) aimed at determining the effectiveness of DST used for teaching the reading of short stories. The participants were college students. The results showed that their reading comprehension improved greatly. In vein with what was mentioned, Hamdy (2017) conducted a study in which 60 Indonesian

college students participated as an experimental group. The findings showed that after applying DST, the experimental group enhanced their reading comprehension, outperforming the control group. Thus, DST positively impacted students' reading skills. In addition, Radaideh et al. (2020) conducted a study with 34 male and female Jordanian fifth-grade students. The results showed that after the treatment, the experimental group performed significantly better on general reading comprehension tests than the control group. The authors concluded that DST is a quite useful tool for enhancing reading comprehension skills. Continuing with the influence of DST on EFL learners' literacy skills, Rahimi and Yadollahi (2017) conducted a study in which 42 lower intermediate EFL students participated (experimental group=21 and control group=21). The results showed that reading and writing were primarily promoted through DST, particularly through collaborative work on an online platform. Furthermore, a study by Syam (2022), in which 80 Indonesian learners of English participated, revealed that after DST was implemented, the experimental group showed improvement in their literacy skills, while the control group showed no improvement.

The aforementioned findings are similar to those Menezes (2012) reported. In her study, after the introduction of Storybird in a language teacher master class in Portugal, the student teachers from different levels of education decided to use it with their own students. At a primary level, as a result of the application of Storybird, students felt encouraged and their literacy skills improved remarkably. This tool also helped timid and introverted students to write on their own. At a basic level, the use of DST increased their creativity, and it gave them not only a great writing opportunity but a great reading one as well. Finally, at a kindergarten level, the findings of this experiment were that Storybird promoted early writing and storytelling in novel ways. It also helped the students to develop sequencing skills and comprehension of story parts (reading/writing skills).

With all of the above in mind, it seems that DST influences EFL learners' literacy skills to a satisfactory degree.

### **3.4 The Challenges of Applying DST in the EFL Classroom**

Although previous research has shown that the implementation of DST in the EFL classroom benefits students' literacy skills, other studies suggest that the implementation of DST in the EFL classroom presents a number of challenges.

Kasami (2018) conducted a study in which the data was gathered through questionnaire surveys administered to students in six *Information English* courses in Japan. There were four problems with implementing DST assignments. First, there was a significant problem when recording the story with a microphone, some narrations were not clearly audible, and the volume of the narration was too low. Second, insufficient and inadequate time to carry out the task. Third, poor computer skills and difficulties using computers. And fourth, copyright issues:

students could not use the music, images, and characters they wanted, so they had to use what was copyright free.

It is also important to point out a study by Feng (2020) on the challenges of applying DST in the EFL classroom. This study implemented a DST project in an English writing course at a southern Chinese college. The challenges revealed by the study were that students spent a lot of time on achieving the necessary technical skills, so the teacher had to spend time teaching that important knowledge. Also, DST needs to be embedded in a language-rich curriculum that provides learners with diverse and rich opportunities to acquire new vocabulary and structures; therefore, the teacher is responsible for this task. In addition, by using the Internet to find some multimedia resources, the students infringed copyright. Some of these challenges are supported by Azis's study (2020), in which 28 Indonesian EFL students were the participants. The results of this study showed that the students faced some challenges, for example, lack of time to complete tasks, lack of effective guidance for using applications to create DST, and poor technological skills.

Over and above that, Fan (2022) carried out an investigation whose purpose was to analyze the effectiveness of teaching and learning by implementing a DST project in English courses for first-year university students. The challenges that Fan (2022) discovered were that first, students were not adept enough at dealing with technical issues such as recording their story, putting together narration, visuals, and soundtrack, and choosing the right DST editor. Second, the teacher spent too much time giving detailed instructions and scaffolding throughout the composition process. Third, the teacher needed to divide the DST project into different sequential stages, so that students could work on one stage at a time. Fourth, the students were uncertain about what topic to choose to create their own DST and write the script. Fifth, the students were also uncertain about what images, sounds, and backgrounds to choose for their first DST.

Additionally, according to Andayani (2019), in a study of a seven-week class project in which English student teachers created a DST project to teach English to young learners, one of the challenges that they had to face was the difficulty of creating DST if they did not have basic technological knowledge. Also, based on the different characters of the story, the teachers had problems when modifying their voices to portray the characters' emotions accurately. Finally, teachers spent too much time searching for appropriate media resources (music, images, avatars, scenery backgrounds, etc.).

To sum up this chapter, nine studies conclude that DST significantly improves EFL learners' literacy skills. Moreover, six studies conclude that the application of DST in EFL classes benefits the students and their learning environment. However, five investigations

demonstrate that the use of DST in EFL classes presents some challenges for both teachers and students.

## CHAPTER IV

### Methodology

A research synthesis aims to increase the applicability of research findings and develop new perspectives by associating existing knowledge and research findings with a given topic (Wyborn et al., 2018). In order to obtain appropriate sources for this research synthesis, we searched information in the following online databases: ProQuest Educational Journal, ERIC, ResearchGate, SSRN, Research-Publishing.net, and Google Scholar.

The criteria to select the articles were as follows: First, the articles must refer to the use of DST in EFL classrooms and the use of DST by EFL teachers; for that reason, we only considered publications written in English. Second, the articles must be empirical studies in order to deeply understand the effects of using DST on the learning process of EFL learners. Third, the articles must have been published since 1998 because the use of DST in EFL classes seems to have started at that time (StoryCenter, n.d). Finally, we do not use unpublished studies so that this research synthesis can be deemed as reliable.

The keywords for this research are the following: a) Digital storytelling, b) EFL learners, c) Literacy skills, d) Student motivation, e) Educational technology, f) Technology integration, and g) Teaching strategies. In this research work, there are no restrictions related to the design of the studies. Therefore, qualitative, quantitative, and mixed methods were considered. In addition, we used digital sources to facilitate finding studies on DST.

The journals that were revised are the following: English Teaching & Learning, Research-Publishing.net, Cogent Education, Teaching English with Technology, Arab World English Journal, International Journal of Scientific Research in Computer Science, Engineering and Information Technology, Multimodal Technologies and Interaction, International Journal of Applied Linguistics & English Literature, Taylor & Francis Online, and Computer Assisted Language Learning. Subsequently, we developed a coding process in order to classify the articles according to the research questions indicated in the above introduction.

## CHAPTER V

### Data Analysis

Twenty studies were selected to be analyzed in this research synthesis. According to this analysis, important categories were identified, including those meant to answer the research questions of this study. First, the number of studies focusing on the impacts of the use of DST in EFL classrooms; second, the research methodological approaches; third, the characteristics of DST that significantly influence EFL learners' literacy skills; fourth, the most substantial impacts of DST on EFL learners' writing skills; fifth, the most significant impacts of DST on EFL learners' reading skills; sixth, the impact of the use of DST in the EFL classroom; and seventh, the challenges of applying DST in the EFL classroom. In addition, tables were used to illustrate the findings of this research work.

#### 5.1. Researchers' Foci on the Characteristics and Use of DST in EFL Learning

Table 1 displays an overview of the researchers' foci on the use of DST in EFL. At the end, a brief description is provided.

**Table 1**

*Researchers' Foci on the Characteristics and Use of DST in EFL Learning*

<b>Researchers' Foci on the Characteristics and Use of DST in EFL Learning</b>	<b>Author(s)/Year</b>	<b>No. of studies</b>
Writing skills	Castillo-Cuesta et al. (2021); Goestina et al. (2022); Yamac & Ulusoy (2016)	3
Reading skills	Anggeraini & Afifah (2017); Hamdy (2017); Radaideh et al. (2020)	3
Both skills	Menezes (2012); Rahimi & Yadollahi (2017); Syam (2022)	3
Benefits	Aljaraideh (2019); Dogan & Robin (2008); Mirza (2020); Smeda et al. (2014); Vu et al. (2019); Yoon (2013)	6
Challenges	Andayani (2019); Azis (2020); Fan (2022); Feng (2020); Kasami (2018)	5

N=20

Table 1 shows researchers' foci on the characteristics and use of DST in EFL learning. There are five main foci: writing skills, reading skills, both skills, benefits, and challenges. At the top of the table, writing skills, reading skills, and both skills each make up 15 percent. It is followed by benefits at 30% and challenges at 25%. Remarkably, most researchers (45%) focus on investigating the use of DST on the literacy skills of EFL learners.

## 5.2. Research Methodological Approaches

Table 2 displays the methodological approaches of the 20 studies used for analysis in this section. Also, at the end of the table, a brief description is shown.

**Table 2**

*Research Methodological Approaches*

<b>Methodological Approaches</b>	<b>(Author/Year)</b>	<b>No. of studies</b>
Quantitative	Aljaraideh (2019); Hamdy (2017); Radaideh et al. (2020); Rahimi & Yadollahi (2017); Syam (2022)	5
Qualitative	Andayani (2019); Fan (2022); Feng (2020); Kasami (2018); Menezes (2012); Mirza (2020)	6
Mixed methods	Anggeraini & Afifah (2017); Azis (2020); Castillo-Cuesta et al. (2021); Dogan & Robin (2008); Goestina et al. (2022); Smeda et al. (2014); Vu et al. (2019); Yamac & Ulusoy (2016); Yoon (2013)	9

N=20

From the bottom to the top of Table 2, nine studies followed a mixed method. Subsequently, six studies followed a qualitative approach. Finally, five studies followed a quantitative approach. Thus, 45% of the 20 studies dedicated to the analysis correspond to mixed methods that provide the benefit of having a specific understanding and general data about the influence of DST on the English literacy skills of EFL learners.

## 5.3. The Characteristics of DST that Significantly Influence EFL Learners' Literacy Skills

Table 3 shows the different characteristics of the studies regarding the influence of DST on EFL learners' literacy skills. At the end of this table, more details are shown.

**Table 3**

*The Characteristics of DST that Influence EFL Learners' Literacy Skills*



Characteristics	Author(s) year	No. of studies
Integrating technology in learning	Andayani (2019); Dogan & Robin (2008)*; Mirza (2020)*; Rahimi & Yadollahi (2017)*	4
Enhancing students' ability in learning	Aljaraideh (2019)*; Fan (2022)*; Kasami, (2018)	3
Enhancing students' reading skills	Hamdy (2017); Menezes (2012)*; Radaideh et al. (2020)*; Syam (2022)*; Yoon (2013)*	5
Enhancing students' writing skills	Castillo-Cuesta et al. (2021)*; Dogan & Robin (2008)*; Menezes (2012)*; Syam (2022)*	4
Impact on students' performance	Anggeraini & Afifah (2017); Dogan & Robin (2008)*; Fan (2022)*; Feng (2020); Goestina et al. (2022); Smeda et al. (2014); Vu et al. (2019)	7

N=18 \*Studies are counted in more than one category

### **5.3.1. Integrating technology in learning**

According to Andayani (2019), the incorporation of technology in language learning introduces positive changes in the development of teaching methods, hence making language teaching easier. Also, technology integration can occur thanks to people trained in technology and thus present the value of using technology to improve English proficiency (Dogan & Robin, 2008). In addition, Mirza (2020) states that the favorable findings of her research imply that DST should be covered in EFL communication courses. Additionally, as Rahimi and Yadollahi (2017) state, DST is a technology-based learning environment that encourages active learning through collaboration and cooperation, helping EFL students improve their language literacy.

### **5.3.2. Enhancing Students' Ability to Learn**

As, Aljaraideh (2019) states, the students' capacity and drive to further their English-language learning can be improved through DST because it creates a more enjoyable and effective learning experience. Also, Fan (2022) suggests that DST is a successful teaching and learning initiative that enhances EFL students' learning ability related to content. Moreover, students have expressed positive feelings about the usage of DST since lessons have become more entertaining and useful, allowing them to improve their learning abilities (Kasami, 2018).

### **5.3.3. Enhancing Students' Reading Skills**

According to Hamdy (2017), Radaideh et al. (2020), and Yoon (2013), the implementation of DST in the classroom allows students to improve their reading skills more than students who receive English lessons without the use of it. Moreover, Menezes (2012) states that students improve their reading ability because they tend to read a variety of stories from different classmates of theirs. Furthermore, according to Syam (2022), the utilization of DST has the potential to enhance students' reading abilities through the reading of subtitles incorporated into their stories. This allows learners to engage in reading practice, thereby improving both their reading speed and comprehension. Additionally, educators can utilize a wide range of strategies to teach the language effectively, as DST proves to be a flexible tool in this regard, accommodating approaches from the simplest to the most advanced.

### **5.3.4. Enhancing Students' Writing Skills**

As Castillo-Cuesta et al. (2021) and Dogan and Robin (2008) state, DST application in the classroom assists pupils to enhance their writing skills more than students who do not receive English instruction through it. Similarly, students have improved their writing skills after the use of DST because of the creation of different stories that led them to upgrade their vocabulary in order to write (Menezes, 2012). In addition, Syam (2022) thinks that DST can help students develop their writing skills through subtitles and conversations within their stories. This exposure to written language can contribute to the development of writing skills by providing models of sentence structure and vocabulary usage. Thus, learners also have opportunities to express their thoughts and ideas through written responses or creative writing activities related to DST.

### **5.3.5. Impact on Students' Performance**

DST has a greater impact on students' reading comprehension skills than traditional or paper-based instruction as it allows students to analyze texts individually and freely, allowing them to comprehend them better (Anggeraini & Afifah, 2017). Moreover, according to Dogan and Robin (2008), teachers that have employed DST in the classroom with their students have stated that their students' performance in certain aptitudes (presentation, research, and organizational skills) has improved. Also, the implementation of DST has resulted in an increase in learners' test scores, which seems to indicate that their performance has improved (Goestina et al. 2022). Besides, Smeda et al. (2014) state that the use of DST created more engaged teaching and learning experiences, leading to increased student participation and motivation. It allowed students to actively construct their knowledge and understanding, resulting in enhanced learning outcomes. In addition, teachers who employ DST have indicated that their students' performance (knowledge, skills, and self-efficacy for DST) has improved because the students presented a positive attitude towards school, community, and

culture, as well as creativity and talent showcased in their stories (Vu, Warschauer, & Yim, 2019).

#### 5.4. Impacts of the Use of DST on EFL Learners' Writing

Table 4 shows the effects of using DST on EFL students' writing. Said effects are improving students' grammar and vocabulary and enhancing their narrative writing and creativity. Additionally, a specific description of each effect of using DST on EFL students' writing is shown at the end of the table.

**Table 4**

*Impacts of the Use of DST on EFL Learners' Writing*

No. of studies	Author	Impacts of the Use of DST on EFL Learners' Writing
4	Castillo-Cuesta et al. (2021); Yamac & Ulusoy (2016); Rahimi & Yadollahi (2017); Syam (2022)	Improving grammar and vocabulary
5	Castillo-Cuesta et al. (2021)*; Goestina et al. (2022); Yamac & Ulusoy (2016)*; Menezes (2012); Syam (2022)*	Enhancing narrative writing and creativity

N=6 \*Studies are counted in more than one category

##### 5.4.1. Improving Grammar and Vocabulary

According to the analysis, students' grammar and vocabulary are quite meaningful for EFL students; for that reason, the implementation of DST has been considered a useful tool for their development (Rahimi & Yadollahi, 2017; Syam, 2022). The findings suggest that the application of DST on ELF learners' writing has a positive impact on students' rules related to ideas, structure, word choice, sentence fluency, and writing quality, in brief, grammar, and vocabulary (Castillo-Cuesta et al., 2021; Yamac & Ulusoy, 2016).

##### 5.4.2. Enhancing Narrative Writing and Creativity

Writing can be an easy task as long as students know narrative writing well or if they have developed their creativity correctly; therefore, the application of DST is deemed a crucial gadget to help improve those two students' aspects. (Menezes, 2012; Syam, 2022). According to the studies of Castillo-Cuesta et al. (2021), Goestina et al. (2022), Menezes (2012), and Yamac and Ulusoy (2016), the use of DST on EFL learners' writing helps improve their story elements, story word counts, sequencing skills, and comprehension of story parts, basically, their narrative writing and creativity.

## 5.5. Impacts of DST on EFL Learners' Reading

Table 5 shows the impacts of DST on EFL learners' reading. Also, at the end of the table, a brief description is shown.

**Table 5**

*Impacts of DST on EFL Learners' Reading*

<b>Impacts of the Use of DST on EFL Learners' Reading</b>	<b>Author(s)</b>	<b>No. of studies</b>
Reading comprehension	Hamdy (2017); Radaideh et al. (2020)	2
Desire to read	Menezes (2012)	1
Reading ability	Syam (2022); Yoon (2013)	2

N=5

### 5.5.1. Reading Comprehension

According to Hamdy (2017) and Radaideh et al. (2020), after the implementation of DST in the classroom the students' post-tests showed higher levels of improvement in reading comprehension compared to those who did not use that tool.

### 5.5.2. The Desire to Read

As Menezes (2012) states, the use of DST in the classroom motivates students want to read more since they create their stories and read the ones their classmates create and it creates a dynamic and engaging learning environment that motivates students to read more and actively participate in storytelling.

### 5.5.3. Reading Ability

According to Syam (2022), DST improved students' reading abilities since it provided the confidence students needed to use the language. Also, DST is considered a flexible tool and can help students enhance their reading ability (speed and comprehension) by inserting subtitles at the bottom of their creations (Yoon, 2013).

## 5.6. Impacts of the Use of DST on the EFL Class

Table 6 displays the most significant effects of the use of DST on the EFL class. These effects are motivation increase, engagement enhancement, confidence boost, and 21st-century skill enhancement. In addition, at the end of the table, there is a specific description of each effect.

**Table 6**

*Impacts of the Use of DST on the EFL Class*

Impacts of the Use of DST on the EFL Class	No. of studies	(Author/Year)
Motivation increase	4	Aljaraideh (2019); Dogan & Robin (2008); Smeda et al. (2014); Yoon (2013)
Engagement enhancement	2	Dogan & Robin (2008)*; Smeda et al. (2014)*
Confidence boost	2	Mirza (2020); Yoon (2013)*
21st-century skill enhancement	3	Dogan & Robin (2008)*; Mirza (2020)*; Vu et al. (2019)

N=6 \*Studies are counted in more than one category

### **5.6.1. Motivation Increase**

The use of DST in the EFL class has a positive impact on students' motivation because they are digital natives, so they are comfortable using it. Furthermore, thanks to the fact that DST is a combination of stories and technology (such as multimedia components), students in the EFL class feel deeply motivated to learn the language (Aljaraideh, 2019; Dogan & Robin, 2008; Smeda et al., 2014; Yoon, 2013).

### **5.6.2. Engagement Enhancement**

The application of DST in the EFL class not only increases students' motivation but also enhances their engagement. Currently, technology is an essential part of students' life, so education has to update its ways to teach the subjects, in this case, specifically the English language. Therefore, DST is considered a fundamental pedagogical tool that can improve students' engagement in learning English thanks to the fact that DST uses technology (Dogan, & Robin, 2008; Smeda et al., 2014).

### **5.6.3. Confidence Boost**

According to Mirza (2020) and Yoon (2013), technology has become an important aspect of our lives since virtually everyone has access to a device of this kind, so the application of information and communication technologies (ICT) in the classroom has been increasing every day; this is the case of the use of DST in EFL classes. DST is a facilitator for teaching and learning because it helps students to gain a deeper understanding of the lesson, leading to their voluntary energetic participation; and their pronunciation, organizational, technical, and research skills, and ability to deliver presentations also improve. For this reason, DST can boost students' confidence.

**5.6.4. 21st-century Skill Enhancement**

Dogan & Robin (2008), Mirza (2020), and Vu et al. (2019) have expressed that young students need a different method to learn, apart from the traditional ones because they are a generation that is growing up together with technology; for this reason, they need not only to learn the traditional skills but also the 21st-century skills, such as critical thinking, communication skills, collaboration, information literacy, technology skills, and digital literacy, among others. Thus, educators implement DST in their EFL classes to enhance their students’ 21st-century skills since DST is like a mixture of multimedia tools and stories.

**5.7. The Challenges of Applying DST in the EFL Class**

Table 7 pictures the challenges of using DST in the EFL class. In addition, at the end of the table, there is a specific description of each effect. More details of these challenges are shown at the end of this table.

**Table 7**

*Challenges of the Application of DST in the EFL Class*

<b>Challenges of the Application of DST in the EFL Class</b>	<b>(Author/Year)</b>	<b>No. of studies</b>
Technical issues	Kasami (2018); Andayani (2019)	2
Lack of digital literacy skills	Andayani (2019)*; Azis (2020); Feng (2020)	3
Difficulty in topic selection and creative choices	Fan (2022)	1
Time-consuming	Kasami (2018)*; Andayani (2019)*; Feng (2020)*; Fan (2022)*	4

N=5 \*Studies are counted in more than one category

**5.7.1. Technical Issues**

According to Kasami (2018), there were some issues when trying to implement DST in the classroom. First of all, it was difficult for the students to record the stories with a microphone, resulting in unclear audio or low volume. Second, copyright issues appeared, limiting the use of the desired music, images, and/or characters. Furthermore, the author mentions that the students frequently needed more time to carry out their tasks since they had poor computer skills and difficulties while using computers. Moreover, the lack of enough digital literacy meant that the students had to face challenges when modifying their voices to accurately portray the emotions of different characters in the story (Andayani, 2019).

### **5.7.2 Lack of Digital Literacy Skills**

As Feng (2020), Azis (2020), and Andayani (2019) state, the lack of students' digital literacy skills requires teachers to allocate time to teach those skills, and students spend a significant amount of time acquiring the necessary technical skills. In addition, since students have no knowledge of these skills there were cases of students infringing copyright while searching for multimedia resources (Feng, 2020).

### **5.7.3 Difficulty in Topic Selection and Creative Choices**

According to Fan (2022), students experience hesitancy when it comes to selecting a topic and developing the script for their DST project. They also face challenges in choosing suitable visuals, sounds, and backgrounds for their DST creation.

### **5.7.4 Time-Consuming**

As Kasimi (2018), Andayani (2019), Feng (2020), and Fan (2022) mention, teachers have to deal with this time-consuming challenge when trying to implement DST in their classrooms since they have to spend long hours teaching how this tool works to those students who do not have the required technological knowledge. This leads teachers to dedicate time to teaching those skills to their students and extending the deadlines for submitting their own tales.

According to the 20 studies selected, the extent to which DST influences EFL learners' literacy skills is, first, the contribution to the enhancement of students' grammar, vocabulary, narrative writing, and creativity. Second, the participants showed an increase in their desire to read and a significant development in their reading comprehension and reading ability. Furthermore, it is stated that the use of DST in the EFL class is most appropriate for increasing motivation, improving engagement, increasing confidence, and improving 21st-century skills. Finally, the authors of some of the studies claimed that the challenges of the application of DST in the EFL classroom are technical issues, lack of digital literacy skills, difficulty in topic selection and creative choices, and time-consuming.

## CHAPTER VI

### Conclusions and Recommendations

DST is a tool that merges storytelling and technology (Robin, 2006); therefore, the purpose of this research synthesis was to determine the influence of DST on the English literacy skills of EFL learners. Based on the analysis of 20 studies, it can be concluded that using DST with EFL learners has a positive effect on their literacy skills. First of all, the examined studies have provided evidence to consider that DST impacts the EFL class affirmatively because students' motivation, engagement, confidence, and 21st-century skills improved significantly (Aljaraideh, 2019; Dogan & Robin, 2008; Smeda et al., 2014; Yoon, 2013; Mirza, 2020; Vu et al., 2019). Secondly, DST influences EFL learners' literacy skills positively because after the application of this tool, students were able to develop their writing skills, grammar, vocabulary, narrative writing, and creativity in a significant way (Castillo-Cuesta et al., 2021; Goestina et al., 2022; Yamac & Ulusoy, 2016; Menezes, 2012; Rahimi & Yadollahi, 2017; Syam, 2022). Likewise, in reading skills, DST was also a useful tool because it enhanced EFL learners' reading comprehension, desire to read, and reading ability (Anggeraini & Afifah, 2017; Hamdy, 2017; Radaideh et al., 2020; Menezes, 2012; Rahimi & Yadollahi, 2017; Syam, 2022). However, the implementation of DST in an EFL classroom seems to be a challenge, whose success depends on the effectiveness of the way teachers and students embrace it. Some of those challenges are students' lack of digital literacy skills, lack of time to execute the stages of the creation of DST, difficulty in topic selection and creative choices, unexpected technological issues, and copyright problems, among others. In the same way, teachers' challenges are spending too much time giving detailed instructions and scaffolding throughout the composition process, modifying their voices to portray the characters' emotions accurately, and spending too much time searching for appropriate media resources (music, images, avatars, scenery backgrounds, etc.), among others. Nevertheless, DST is definitely considered a useful tool that engages students, makes their learning experience more dynamic, and allows them to express themselves (Rahimi & Yadollahi, 2017).

In summary, through DST, EFL students can significantly and positively improve their literacy skills, motivation, engagement, and 21st-century skills. But these outcomes can only be achieved if the challenges that mean the implementation of DST in an EFL classroom are appropriately dealt with.

The recommendations that we can address for further analysis are two: First, while the studies analyzed in this research synthesis demonstrate the positive impact of DST on EFL learners' literacy skills, there is a need for long-term studies to examine the sustained effects of DST on these skills over time. Further research can explore whether the improvements observed in the short term persist and continue to benefit students in the long run. Second, investigating



the factors that influence the successful implementation of DST in EFL classrooms is crucial for understanding the conditions necessary for optimal outcomes. Future studies can explore variables such as teacher training and support, student characteristics, technological infrastructure, and curriculum design to identify the key factors that facilitate or impede the effective use of DST.

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