From Words to Wonders: EFL Students' Perceptions of Digital Storytelling for Language Learning

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ABSTRACT

This study investigated the use of digital storytelling (DST) in university-level foreign language classes in Vietnam, focusing on students' perspectives. While the term "digital storytelling" may not be widely recognized, it has been adopted by educators, students, and others worldwide as a way to create short films by integrating multimedia elements. The research problem addressed in this study was to extensively examine students' views on incorporating DST projects into their foreign language courses to enhance students' confidence, interaction, and motivation. Data was gathered through various methods, including questionnaires, interviews, observations, student-made videos, and online comments, to describe and interpret the case from the participants' (83 EFL students) perspective. The results indicate that DST positively impacted students' language confidence, critical engagement, motivation, and interpersonal relationships. Students recognized the advantages of DST, such as enhancing language skills and boosting engagement, but also acknowledged the need for more time, resources, and a clear educational strategy to fully integrate DST into the language learning curriculum.

Keywords: Digital Storytelling, Multimedia, EFL, Teaching, Learning

Introduction

The power of storytelling has long been recognized as a beneficial teaching technique, dating back to the origins of civilization (Kuyvenhoven, 2009). In more recent times, the rise of e-learning and m-learning has brought renewed attention to the potential of storytelling in the digital age (Robin, 2020). It is believed that cutting-edge technology can be used to improve both teacher instruction and student learning and foster a new generation of information creators, not just gatherers (Robin & McNeil, 2012).

At its core, digital storytelling (DST) has evolved as a modern embodiment of the classical art of word-of-mouth storytelling (Lambert, 2013). DST enables almost anyone to weave personal

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stories using off-the-shelf hardware, instructional software, and their own creativity and technical skills (Ohler, 2021). While there are various definitions of "Digital Storytelling," they all revolve around the idea of merging storytelling with different forms of digital multimedia, such as graphics, text, pre-recorded voice, video, and music (Robin, 2020).

Despite the growing recognition of DST, the percentage of teachers who actively incorporate it into their instructional activities remains relatively low (Smeda et al., 2014). This study aimed to address this gap by integrating a new type of extracurricular activity, namely digital storytelling, into the curriculum of first-year engineering students enrolled in a General English course.

Building on this context, the present study sought to achieve the following three objectives:

- Explain the theoretical background of "digital storytelling" and its potential applications in language learning.
- Explore whether DST can be considered a versatile tool that meets practical requirements and aligns with the Common European Framework of Reference for Languages (CEFR) within the curriculum of the General English course.
- Provide a detailed account of the empirical research, including compelling examples of author-composed digital stories created by university students.

To address these objectives, the study posed the following research questions:

Research Questions

1) How does DST impact the students' real language confidence, critical engagement, strong motivation and interpersonal relationships?

2) What are the advantages and disadvantages of using DST in their language learning process?

3) How do students feel about the implementation of DST?

The findings of this study will contribute to the growing body of literature on the integration of digital storytelling in higher education language learning environments, providing insights for educators and researchers alike.

Literature review

What is Digital Storytelling?

DST was initially presented by Lambert and Atchley, co-founders of a nonprofit community arts group in Berkeley, California, in the late 1980s. Lambert and CDS have kindly provided on-the-job training and hands-on support for those interested in developing and sharing their personal stories since the early 1990s (Digital Storytelling Center, 2005). Scholars such as those mentioned above generally agree that, as Robin has put it, DST, by nature, is a "*combination of powerful yet affordable technology hardware and software that blends perfectly with the needs of many of today's classrooms, which are focused on providing students with the skills they will need to thrive in an increasingly diverse environment*" (Robin: 2008, p. 222). In turn, Lambert (2002) explicitly defined DST as follows: *"It begins with the notion that in the not-too-distant future, sharing one's story through multiple medium of imagery, text, voice, sound, music, video and animation will be the principal hobby of the world's people"* (p.125). Table 1 simply shows several different points between oral and digital storytelling.

Table 1.

Oral storytelling vs. Digital storytelling (Yoon, 2013)

Items	Oral Storytelling	Digital Storytelling
Time of Advent	thousands ago	in 1994 by Atchley & Lambert at the Center for Digital Storytelling
Type of main style	human voice and gesture	multimedia components (video, image, sound, etc)
Contents delivering	verbal communication	information devices (PCs, Tablets, etc.)
Data Forms	typically painted or printed paper	stored electronically in digital form
Way of learning	verbal delivery-centered / one-way speaking & listening	multiple way delivery / Interaction & collaboration
Main character	Primarily oral combined with gestures and expressions	to unfold a highly sensory experience with narrative voice, images, sound, and music into illuminated understandings

DST, as defined above, appears to be a powerful combination of "digital" and "story." The right combination of these two phrases might imply a variety of meanings. "Digital" refers to everything related to the digital age, and "story" implies so many different things to so many different people that it defies strict definition. DST, in its broadest sense, is the use of personal digital technology to merge many sources into a coherent story. As a result, the striking difference between traditional and digital storytelling is the medium itself and the real possibilities that its digital aesthetic offers over others. Rodriguez (2007) listed some salient characteristics of digital aesthetics introduced by Holtzman (1997), who argues that nonlinearity, discontinuity, and autonomy are the main determining factors of digital media with the physical world. In the same vein, Handler Miller (2008) asserts: "*While traditional stories are told through a single medium - verbal, for example on the printed page - digital storytelling encourages the use of a number of different mediums, all tied together to serve the core story"* (p.124).

This point is also illustrated by Burmark (2004) in his summary of the role of DST by combining high-quality technology to collect, create, and examine visual images and text. This means that integrating visual images with written text will broaden and accelerate learners' ability to deepen their understanding through the speculative exploration of new ideas. In accordance with Benmayor (2008), at much the same time, Alan Davis offers a different definition of a digital story when focusing attention on the presentation on the screen as a type of short story, usually a personal story told in a home first, presented as a short film to be displayed on a TV or computer monitor or projected onto a screen (Kajder et al., 2005). In the wake of these developments, Marta (2024) emphasizes his attention to technology when defining digital storytelling as a combination of factors such as low-cost digital cameras, non-linear authoring tools, and computers to create short multimedia stories. Normann (2011), an early key figure in DST studies, defined DST as a short story, only two to three minutes long, in which the narrator uses his or her own voice to tell his or her own story. With the boundaries for DST largely outlined, scholars have turned their attention to stating the personal element which will give a story a personal touch and is used throughout academic and non-academic contexts (Shinas & Wen, 2022; Windy & Chakim, 2023; Kukul, 2024;). After a comprehensive discussion of the topic, the Digital Storytelling Association postulated DST as "*a modern expression of the ancient art of storytelling*" (Digital Storytelling Association, 2011). Although

there is no unified definition of DST, most definitions have in common, emphasizing the combination of multimedia tools to tell a story, including graphics, sound, video, and audio. This fact has been confirmed by many serious studies to date. For example, Benmayor (2008) found that DST is a multimedia short story that combines voice, visuals, and music. On another line of argument, Kajder, Bull, and Albaugh (2005) claim that a good digital story is the synthesis of a group of still images, joined with narrated background music related to a particular story. However, it is necessary to readily acknowledge that these findings used studies of Western rather than Asia people.

According to Alexander (2011), Chico, a California State University, has developed a comprehensive five-part definition of digital stories, indicating that, for assessment purposes, they should:

- Include a compelling narration of a story;
- Provide a meaningful context for understanding the story being told;
- Use images to capture and/or expand upon emotions found in the narrative;
- Employ music and other sound effects to reinforce ideas
- Invite thoughtful reflection from their audience(s) (p. 27)

Photo stories (Microsoft, 2007), slide-show-style videos (Salpeter, 2005), conversational media (Lambert, 2021), multimedia sonnets (Meadows, 2003), and even radio-with-pictures (Meadows, 2003) are all examples of digital stories that may be used as a versatile teaching and learning tool. DST, at its core, enables most people to weave their personal narratives, including still/motion photos, music, and sound, depending on the author's superior technological ingenuity and creativity. Scholars have turned their attention to DST as a real-world mode of expression that provides significant autonomy for learners since the boundaries for a digital story have been substantially set.

Digital Storytelling: A Promising Approach to Language Learning

Digital storytelling has emerged as a promising approach to language learning, building on the well-established power of storytelling as an effective pedagogical technique (Robin, 2020; Du et al., 2024). At its core, DST involves the integration of traditional storytelling with various forms of digital media, including images, video, audio, and text (Lambert, 2013; Ohler, 2022). This fusion of story and technology creates a dynamic learning environment that can engage students and foster a range of language learning outcomes.

The existing literature suggests that the use of DST in language education can positively impact students' confidence, critical engagement, motivation, and interpersonal relationships (Smeda et al., 2014). By crafting and sharing their own digital stories, students can develop a deeper sense of ownership and investment in the learning process, boosting their confidence in using the target language (Maylia, 2021; Mahmawati & Mubayyinah, 2024). Furthermore, the process of planning, organizing, and creating digital stories encourages critical thinking and problem-solving skills, as students must make strategic decisions about the content, structure, and multimedia elements of their narratives (Yang et al., 2020). The motivational aspect of DST has also been well-documented in the literature. The opportunity to create and share personal narratives using digital tools can foster a sense of engagement and enthusiasm among language learners, which is crucial for sustained language development (Van et al., 2021; Chau et al., 2021; Nair & Yunus, 2022; Murad et al., 2023). Moreover, the collaborative nature of the digital storytelling process can strengthen interpersonal relationships and foster a sense of community within the language classroom (McLellan, 2024). Despite the growing body of

research on the benefits of DST in language learning, the integration of this approach into mainstream educational practices remains limited (Smeda et al., 2014). This study aims to address this gap by exploring the implementation of DST in a university-level foreign language course in the Vietnamese context, with a focus on students' perceptions and experiences.

Digital Storytelling in Foreign Language Learning

Studies on how DST might enhance successful learning in EFL classrooms are still the focus of quite a number of studies. Kajder (2006) and Rance-Roney (2008), for example, have convincingly argued, supported by a number of empirical investigations, that "*learners have numerous chances to connect with and use language in ways that are authentic and personally meaningful*" (p. 30). As a result, students become "storytellers," telling their stories to an audience (Kajder, 2006). Although DST is discussed briefly in these and other studies, only Le (2020) has concentrated her empirical research, especially on the issue of DST application in the context of a new Vietnamese university. The study's major goal was to investigate the impacts of DST on student learning, motivation, and engagement through concept organization, opinion expression, and idea formation.

Figure 1

The convergence of DST in education (Robin, 2008)

Benefits of the DST

Despite its limitations, the DST offers many significant benefits to students' language learning in the EFL classroom. Few learning activities like DST can help learners improve not only all language skills but also other language areas as well as 21st-century skills (see Figure 2).

Figure 2

Advantages of DST to Audience (Robin, 2008)

Perhaps the most enormous benefit of adopting DST in a foreign language classroom is that learners can create their own digital stories individually or as part of a small group. In addition, DST is a way to ingest and teach 21st-century technological skills to the 21st-century student (see Figure 1). This creative work helps students build a strong foundation for developing the skills that many educators (Partners for 21st (Century Skills, 2004; Brown et al., 2005; Jakes, 2006) call 21st Century Literature, Digital Age Literature, or 21st Century Skills. Regardless of the specific term being used, these skills are described as a powerful combination of the following:

• Digital literacy is the ability to communicate, discuss problems, gather information and seek help;

• Global knowledge is the ability to read, interpret, respond to, and contextualize news from a global perspective

• Technological proficiency is the ability to use applications and other technologies to enhance learning, productivity, and performance;

• Visual literacy is the ability to understand, develop, and communicate through images;

• Information literacy is finding, evaluating, and summarizing information.

Digital storytelling can be a rewarding learning experience that many researchers fervently hope students will know and master in the 21st century. Along with developing advanced communication skills, students also practice researching a topic, asking questions, organizing ideas, expressing opinions, and building meaningful stories. The study purports that this learning pushes students to acquire 21st-century literacy skills by incorporating the latest technology to communicate effectively while creating digital stories (Yang & Wu, 2021).

DST is mainly used to help students improve their writing skills because it improves their critical awareness and understanding of writing as a recursive and cyclic process (Pardo, 2014). However, other studies have also shown that DST can also be used effectively to develop students' vocabulary, grammar, reading, and speaking skills in the EFL classroom (Arroba & Acosta, 2021; Murad et al., 2023; Du et al., 2024). As such, DST can be viewed as a multi-approach teaching strategy for language and literacy instruction to provide students with an engaging, meaningful, and authentic L2 learning experience.

Challenges of DST

Although many recent academic studies consistently show that DST significantly improves students' language skills, particularly literacy, in many respects, it still presents some serious limitations in the EFL classroom, which can be identified as follows. For example, a joint study by Mullen and Wedwick (2008) showed that in some cases, educators simply view DST as a perfect combination of images and music and, therefore, assume that it does not allow students to develop and respond to language skills and holds students from using L2 skills. The next important limitation of student-created small-group digital stories is that students are often distracted by not wanting to collaborate with their classmates (Hwang et al., 2014). This distraction leaves many students with fewer opportunities to regularly practice and significantly improve their speaking and writing skills during the DST process. The third severe limitation, research by Lee (2014), shows that students face some considerable difficulties related to technical problems during the DST process and often fall into a state of frustration when they do not use the full range of topics given by the teacher because of insufficient knowledge of the content. As a result, teachers' ignorance of key components of the digital narrative can lead to poor results when using DST in the EFL classroom. Therefore, if students lack the distinctive skills and coherent strategies to interact effectively with other group members, DST may not be a sharp tool to encourage coherent writing assignments as well as advanced language skills. Lee's research (2014) shows that practicing DST is time-consuming; many students constantly complain and feel overwhelmed when DST is practiced weekly, especially for students with low L2 potential. Meanwhile, teachers' short time and little experience performing DST tasks is another major obstacle to introducing DST in the EFL classroom.

A five-week Pilot Educational Project: Personal Digital Narratives

The description of the digital storytelling exercise

Digital storytelling is completed over the course of a semester and is framed by course content and textbooks. There are several sorts of digital storytelling, as discussed above. However, for this pilot, I chose personal narratives for educational purposes, i.e. stories about personal reflection or personal growth (Robin, 2020). At this stage, students continue to develop their own digital stories about certain themes, which they publish on Facebook or YouTube as a kind of speaking practice. The author introduced and discussed DST's definition and pedagogical applications with students at the start of the Fall 2021-2022 semester. Furthermore, the researchers provided them with additional references to web stories from previous student group assignments so they could see more examples at home. Five weeks are allotted to complete their project.

Materials

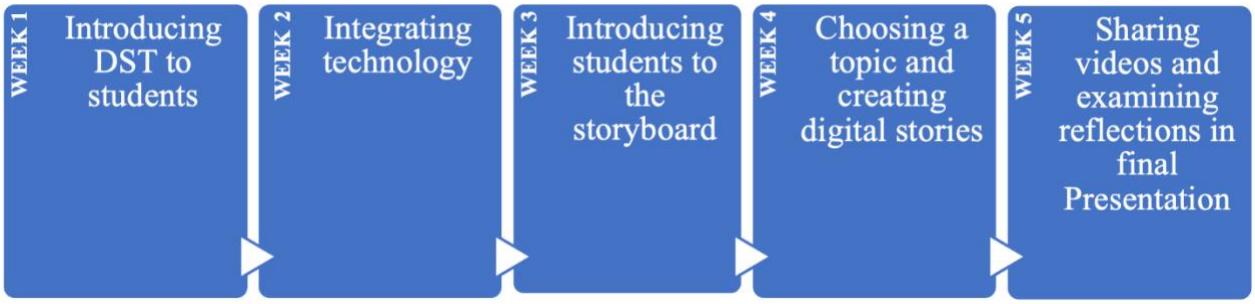
The primary source for this study was the Life: A2-B1 textbook edited by John Hughes (Cengage Learning, 2015), covering five units from unit 1 through unit 5. These five modules were chosen precisely because they were part of the syllabus that I taught my students for 15 weeks.

Implementation of the DST project

The method was carried out over the course of fifteen weeks during the Fall term of the 2021-2022 academic year in a General English course. The figure depicts the digital storytelling implementation plan.

Figure 3.

Weekly implementation plan



1st Week: *Introducing DST to students*

As earlier mentioned, we began by explaining Labov's (1972) paradigm of individual experiences narrative. Then, these components will be contrasted with the seven criteria mentioned by the Center for Digital Storytelling, emphasizing the distinction between conventional storytelling and the new possibilities afforded by technological mediums (see Gregori Signes, 2007). This analogy aided students in comprehending the structure of DST. They were also exposed to personal narratives, which were the type chosen for this pilot study. Students use this data to select a variety of multimedia tools based on their computer literacy level, construct storyboards (i.e. texts, photos, music, and other materials), and any other effects they wish to include in the final version.

2nd Week: *Integrating Technology*

The second part of the introduction taught students about software and apps for making digital stories, which have traditionally been secondary to storytelling. We select simple software: For audio control, we prefer Wevideo, Photostory 3, Windows Movie Maker, and Audacity; other tools such as Powerpoint and iMovie have also been listed.

3rd Week: *Introducing students to the Storyboard*

The narrative writing, drawing, photo collection, and music selection could all be accomplished in three weeks, so it took us nearly a month to get the first draft from the students. One of the initial steps toward story training was giving them Lambert's Digital Storytelling Textbook (2007) so they could figure out what type of story they wanted to create and how to do it as an example of personal reflection. Lambert's (2007) descriptions contain a story-type description as well as some question tips to help students develop a possible scenario and storyboard.

4th Week: *Choosing a topic and creating digital stories*

Eighty-three pre-intermediate students who were non-English majors were divided into twenty groups (some students chose to work individually). My Favorite Room, My Ideal City, My Photos, My Hobbies, My Vacation Plan/Course, My Journey, My Favorite Place to Eat, and A Souvenir are the topics chosen from the "Life" course book. Then, before publishing on YouTube/Facebook, we intended to employ DST as the central focus of a practical speaking exercise in which all students provided critical feedback on how to develop a technological digital story. They are invited to discuss their ideas and opinions on the topic with their group members and the teacher. The teacher will next introduce some useful tools/software for producing digital stories and, if necessary, give constructive advice. Ordinarily, students find their own solutions to problems they face in their groups to facilitate learning.

5th Week: *Sharing videos and examining reflections in the Final Presentation*

Following the project, peer reviews and teacher feedback were collected with teacher-designed rubrics. The stories have also been shared on YouTube and Facebook.

Elements of Effective Digital Stories

An effective digital story has seven basic components: (1) a point of view, (2) a dramatic question, (3) emotional content, (4) economy, (5) pacing, (6) the gift of your voice, and lastly (7) soundtrack. As shown in Figure 2, these elements can be divided into two major phases: the writing phase (1-4) and the construction phase (5-7).

Figure 4.

Elements of effective digital stories (Kajder, 2004)

In addition to these elements, the following phases are proposed for creating a successful digital story (Frazel, 2010):

• the preparation stage, during which students choose a topic, write scripts to serve as the framework for their digital tales and revise their scripts in response to criticism.

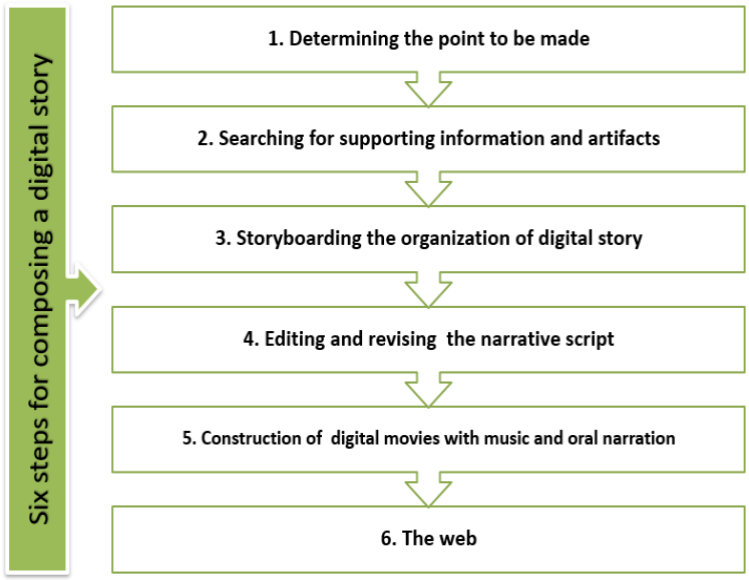
• the production stage, in which students select relevant multimedia assets to complement their scripts (e.g., music, photographs, sound, or voiceover) and construct digital stories using video editing software (e.g., PhotoStory3, iMovie, or MovieMaker) or Web 2.0 apps.

• the presentation stage, during which students share their stories in class and publish them on the internet.

Composing a digital story consists of six steps, which are as follows: (1) determining the point to be made, (2) searching for supporting information and artifacts, (3) storyboarding the organization of the digital story, (4) group editing of the narrative script with drastic revision, storyboarding the organization of the digital story, (4) group editing of the narrative script followed by revision, and (5) construction of digital movies with music and oral narration, and (6) the web (Kajder, 2004).

Figure 5.

Steps of digital storytelling (Kajder, 2004)



In light of the preceding research, this study provides a fresh impetus for the implementation of digital storytelling (DST)-based collaborative activities. First, despite its widespread use in English Language Teaching (ELT), DST lacks a solid foundation in English as a Foreign Language (EFL) environments, particularly among non-English major technology students. Second, it is argued that there are still some gaps in DST research that this study aims to address.

There has been very limited current research on the use of DST in the tertiary setting of Vietnamese EFL. As a result, this study examines the success of DST through a new lens, narrowly focusing on DST projects co-produced by non-English majors and exploring user responses to the feasibility of DST in the language classroom. For these reasons, the current research sought to provide empirical evidence on the effectiveness of a DST-based collaborative task in an EFL General English classroom in Vietnam.

Methods

Pedagogical Setting & Participants

The research was conducted at the Faculty of High Quality in the first semester. The participants were 83 first-year students from non-English major programs. According to the Common European Framework of Reference, the learners' proficiency levels ranged from elementary to pre-intermediate (CEFR). The course involved in this project was called "General English 2," and it was a compulsory course for all non-English major students at the university. The coursebook used was Life: A2-B1 by John Hughes (Cengage Learning, 2015), with the learning objective that learners would achieve a CEFR level of A2.

The main participants in this study were EFL university students. The researchers administered a questionnaire survey to thoroughly examine the students' overall perceptions regarding the use of digital storytelling (DST) for real-world learning purposes. The following tables provide details about the student demographics, including their gender, age, and proficiency level.

Table 2
Background information on study participants (1)

No.	Information	N=83		
		Option	**Frequency**	**Proportion**
1	Gender	Male	51	61%
		Female	32	39%
2	Age	18	55	66%
		19	15	18%
		20	13	16%
3	Years of learning English	9+ years	45	54%
		8 years	25	30%
		7 years	13	16%
4	Computer knowledge	Poor	0	0%
		Fair	40	48%
		Good	30	36%
		Very good	13	16%
		Excellent	0	0%
5	Frequency of computer use	Every day	70	84%
		Once a week	10	12%
		Once a month	3	4%
		Never	0	0
6	Average time for self-learning of English (hours/per week)	1-2 hours	15	18%
		3-4 hours	50	60%
		5-6 hours	18	22%

Design of the Study

The current study employed a mixed-method approach to investigate the impact of digital storytelling (DST) on learners' performance. The utilization of a mixed-method approach enables the researcher to gain a more comprehensive understanding of the various factors influencing the learning process (Creswell & Plano, 2015). As Mackey and Gass (2012) noted, "*quantitative data can provide researchers with a large numerical database, while qualitative data often furnishes the deeper, contextualized material necessary for a more complete understanding*" (p. 278). The quantitative method is beneficial for the descriptive and statistical analysis of the learners' outcome scores at the end of the project, which represents tangible evidence of improvement in learners' achievement. Conversely, the qualitative method, which relies on the three "I's" - "*Insight, intuition, and impression*" (Dey, 1993, p. 78), can also generate the intangible elements in the projects to deepen the researchers' understanding of learners' experiences. By employing a mixed-method approach, the study aims to provide a

comprehensive examination of the impact of DST on learners' performance, integrating both quantitative and qualitative data to offer a more robust and nuanced understanding of the phenomenon under investigation.

Table 3

Background information on study participants (2)

English proficiency level (self-reported)	**Frequency**	**%**	**Reasons for learning English**	**F**	**%**
Beginner	10	12	Compulsory course	30	36
Elementary	30	36	For traveling	5	6
Pre-intermediate	40	48	For communicating with foreigners	10	12
Intermediate	3	4	Interested in English	15	18
Upper-Intermediate	0	0	Interested in culture	3	4
Advanced	0	0	For future career	20	24

Methodology

Before starting the study, undergraduate students expressed a general interest in the topic. Students who have been informed of the opportunity by the researchers are cordially invited to participate. All responses will be anonymous, and the collected data cannot be physically attributed to any individual participant. Furthermore, the students are encouraged by their peers to volunteer for the study. This approach aims to foster a collaborative and supportive environment where students feel empowered to contribute to the research based on their own volition and interest in the subject matter. The emphasis on anonymity and the collaborative nature of the participant recruitment process underscores the study's commitment to ethical research practices and the creation of an inclusive, participant-centric environment.

Data collection & analysis

The study employed a well-designed procedure to address the research questions. The quantitative data was analyzed using Stata software, which automatically and accurately calculated the responses to the survey questions. In addition, 83 participating students provided free-form text comments, which the researchers then systematically sorted and categorized according to emerging themes based on keyword analysis. To organize and manage the qualitative data, the researchers utilized Folio VIEWS, a specialized computer program developed to facilitate the sorting, subsetting, and overall structuring of textual data. The specific research questions and corresponding data-gathering methods are detailed in Table 4, providing a clear overview of the study's methodological approach.

Table 4.

Research questions and data-gathering method

Confidence *Do students feel more confident with DST-based projects?*	Observation, questionnaire, interviews, student-created artifacts, student's online comments
Engagement *Are students engaged with learning throughout the project? How to attract them?*	Observation, questionnaires, interviews, student-created artifacts, student's online comments
Motivation *Does the project motivate students to learn English?*	Observation, questionnaire, interviews, student-created artifacts, student's online comments
Perceptions *What was the difficult part of composing digital storytelling?* *What are the advantages and disadvantages of the DST process?* *Do students feel comfortable enough with the use of DST?*	Observation, questionnaire, interviews, student-created artifacts, student's online comments

This study examines students' interest in using their own digital storytelling (DST) to support their learning. The research aimed to investigate the extent to which students are autonomously harnessing DST technology to support their learning and how this is manifested. The study was carried out through planning for the application of DST and the daily involvement of students in their natural learning environment. The study was conducted in a university English course with around 83 participants aged 18 to 22. The class engaged in a range of DST activities for one semester. Data was collected through the following methods:

Questionnaire

The purpose of the questionnaire was to follow up on the pilot studies and fulfill the main aims of the research by providing descriptive data on students' beliefs, practices, evaluations, and relationships to DST implementation (Cohen et al., 2004). Questionnaires provide a standard method for collecting data from numerous participants, allowing researchers to gather both quantitative data for statistical analysis and qualitative data through open-ended questions or follow-up interviews. In this study, the questionnaires were used to gather quantitative data on students' acceptance and adoption of digital storytelling in the context of English as a Foreign Language (EFL).

The questionnaire design was informed by the study's objectives and literature review. The researchers aimed to make the questionnaire as simple, direct, and clear as possible, asking only essential background questions and avoiding embarrassing or hypothetical questions. Friendly introductions were used to encourage participants to complete the questionnaires. The research sample included 83 students from the Vietnamese EFL technology field.

Piloting and implementation

The questionnaire items were based on the Likert scale and were designed to confirm and extend the study's findings. The first five items elicited learners' thoughts on DST use, the next five focused on DST interaction, and the final five addressed DST evaluation.

Initially, a 15-question survey was designed to reflect valuable ideas from the literature, presented as a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis of using student DST in the EFL classroom. This research questionnaire was piloted among 10 HCMUTE students via the chat group on the social networking site Zalo. The questionnaire was analyzed to evaluate the impact of each word and sentence and how respondents understood them. The final draft was then polished and improved, including content, time, length, and layout.

After the trial, modifications were made to the questionnaires, such as rewriting the first part to make it clearer and more obvious. The comprehensively revised questionnaire was then sent to the students via a hyperlink in an explanatory email. They were asked to what extent they agreed that DST use during school hours is valuable for student learning. The same was then completed with the Negatives, Opportunities, and Threats reading list. Finally, they were asked to suggest other strengths, weaknesses, opportunities, or threats of DST use in the classroom and to provide any personal comments.

83 students at the authors' university completed the questionnaire. After the returned questionnaires, the 10 pilot students were collected into a focus group to examine the results and determine what was considered acceptable and what was not stated regarding DST usage in the classroom. The responders were given pseudonyms to maintain anonymity. The results were processed using the free Stata software.

Observations: The observational field note template was used to write research notes right after school. The researcher recorded short videos and, if required, took photographs of the document to serve as a basis for further discussions. An observational protocol that included descriptive and reflective notes was employed to capture information during the observation. The primary goal was to examine the quality of students' participation in authentic learning tasks, such as integrating technology and learning styles, acquiring new knowledge, student roles, the teacher's role, student confidence, motivation, and participation in classroom activities.

Student Interviews: Semi-structured interviews guided by focus groups of students were used to investigate their practical experience with DST. Online interviews with prepared questions were used to acquire qualitative data. Each interview lasted 10-15 minutes and was meticulously documented and fully audio-recorded with the participants' permission for future research. It took five days to interview all 10 students.

A follow-up online interview with 10 students was conducted on the Teamlink platform to provide additional evidence for the quantitative survey and to develop these results with an open-ended, qualitative approach. The use of interviews allowed the researcher to explore students' perceptions of the benefits and the problems and difficulties they faced during the application process. Interview protocols were developed to take notes on the interviewee's comments during the interview. All interviews were digitally recorded, then meticulously transcribed and analyzed to draw conclusions for the research questions (Schmidt, 2004). The researchers simultaneously translated the transcripts into English, and these English versions were employed for the content analysis of qualitative data. The responses of ten respondents were coded as ST1, ST2, ST3, ... to ST10. Three questions were given to 10 students in around 10-15 minutes, asking them to provide their feedback on the DST design in terms of its

shortcomings, effectiveness, and recommendations for improvement. Interviewees were recruited through emails sent to participants in closed chat groups, advertising in seminar presentations, and direct suggestions from course instructors to their students. Interested participants then contacted the researchers by email. The following table shows how each interviewee in the study was recruited.

Table 5.

Interviewee recruitment

Participant	University	Course	Recruited by
Student 1	HCMUTE	General English 2	Course instructors
Student 2	HCMUTE	General English 2	Email
Student 3	HCMUTE	General English 2	Participant 2
Student 4	HCMUTE	General English 2	Presentation attendee
Student 5	HCMUTE	General English 2	Course instructors
Student 6	HCMUTE	General English 2	Course instructors
Student 7	HCMUTE	General English 2	Course instructors
Student 8	HCMUTE	General English 2	Email
Student 9	HCMUTE	General English 2	Course instructors
Student 10	HCMUTE	General English 2	Course instructors

Student-Generated Artifacts (videotapes) - Students develop planning documents (such as plot diagrams, scenarios, and storyboards) and finished digital stories as part of the DST process (videotapes). A central focus is also placed on investigating how technology mediates the creation of its planning papers. A favorable comparison of planning documents and digital stories will eventually provide insights into students' digital literacy development. The study "*From Words to Wonders: EFL Students' Perceptions of Digital Storytelling for Language Learning*" explored the use of student-generated artifacts, such as videotapes, to provide valuable insights into students' learning experiences and outcomes (Thang et al., 2014). Using videotapes can capture students' digital storytelling products and provide researchers with valuable data on the effectiveness of digital storytelling in EFL learning. Research has shown that analyzing students' digital storytelling products, as captured on videotapes, can reveal insights into the quality of the story, the use of technology, and the linguistic and cultural elements involved (Yang & Wu, 2012; Castañeda, 2013). Additionally, videotapes can provide researchers with a more comprehensive understanding of students' engagement with digital storytelling compared to traditional written assignments, which may not fully capture digital storytelling's multimedia and interactive nature (Sylvester & Greenidge, 2009).

Students' off-the-cuff online comments - Students will share their final digital stories online by posting them to Facebook or YouTube, and then they will critique the digital stories of others. Students' online comments can provide researchers with valuable data on students' experiences and perceptions of digital storytelling in a more natural and spontaneous way. Students' immediate reactions and thoughts about digital storytelling can be captured through online comments, which may not be fully captured through structured questionnaires or interviews

(Sadik, 2008; Castañeda, 2013). Additionally, they can be posted in real-time, offering a more authentic and timely perspective (Yang & Wu, 2012). Furthermore, an analysis of students' online comments can provide insights into digital storytelling's social and collaborative nature and EFL learning, as students may comment on their interactions with peers and teachers during the digital storytelling process (Smeda et al., 2014). Students' digital stories are evaluated on a five-star scale, and they offer insightful comments on the Digital Stories they are viewing. These peer-reviewed and insightful critiques of digital stories will give participants with insight into many aspects of their digital literacy (Thang et al., 2014).

Ensuring credibility

The following strategies prove the study's reliability:

• **Triangulation**: Several data sources were employed, including field notes from participant observations in email responses.

• **Peer review**: The data analysis was peer-reviewed throughout the study, which included weekly meetings with supervisors who focused on the analysis process and suggestions for the paper's completion.

• **Reflexivity**: As previously stated, the researcher tries to avoid any bias in the study by first collecting data from the participants' perspectives and then performing the analysis. Data collection will be analysed at a later date. Finally, the strategies outlined above have helped me continue critical reflection on my analysis and findings throughout my study.

Evaluation rubric

In addition to classroom observations, the evaluation rubric provides clear evidence for assessing student engagement and the quality of student-generated engineering stories. Rubrics can be used to acquire reliable information for a variety of tasks. This could also be a traditional method for evaluating student engagement levels and documenting educational outcomes gained through technical storytelling. We prioritized the selection of the rubric sample developed by Wilden (2017) in this part of the research (see Figure 6). The evaluation panel has five criteria: plot, narration speed, soundtrack, characters, and themes. A description of the level of person assigned to each category, with a possible score of 3, 2, or 1, associated with the level of completion of work in that area.

Figure 6.

Rubrics for assessing a digital story (Wilden, 2017)

Digital Story Assessment			
Name of group/students:			
Name of project:			
Points awarded:			
Story element	3 points	2 points	1 point
1 Plot	We completely understand what happens.	We understand most of what happens.	It is difficult to understand what happens.
2 Pace	The pacing is good and helps the audience get involved.	The pacing is good and helps the audience gets involved. However, sometimes the story moves too fast/too slowly.	The pacing is not good for the style of story. The story is told too fast or too slowly, which makes it difficult to follow.
3 Soundtrack	The music and voices add the right emotion to the story.	Most of the time, the music and voices add the right emotion to the story.	The music is badly chosen and does not fit well with the story.
4 Characters	We know who all the characters are and why they are in the story.	We know who all the characters are, but are not always sure why they are in the story.	It is difficult to understand who the characters are or why they are in the story.
5 Themes	The themes are easy to understand.	The themes can be understood but are not always clear.	It is difficult to understand what the themes are.

Results/Findings

A questionnaire was completed at the end of the study to examine the effectiveness of DST from the students' perspective and measure its success in English classes. As a consequence, students had a pleasant learning experience when adopting DST. They all desire to employ DST new tech in their future endeavors. The questionnaire analysis is shown in the figures below.

1) Findings on Students' Perceptions of the Use of DST for Learning English

Overall, the students viewed DST as beneficial to their development of English language skills, confidence, engagement, motivation, and interpersonal relationships.

2) Students' attitudes related to self-confidence

As stated in Table 7, the next three questionnaire items investigated students' opinions about their DST task abilities. A very high number of students (79% and 75%, respectively) felt confident in their ability to efficiently complete the DST activities and learn all of the essential technical skills, and more than three-fifths were confident in their ability to do well on the DST tasks.

Table 7.

Survey items regarding the students' perceptions related to confidence

Items	Contents surveyed	SD	D	N	A	SA	Mean	SD
1.1	*I was confident that I would complete the DST project successfully.*	1 1.2%	2 2.4%	14 16.9%	46 55.4%	20 24.1%	3.99	.789
1.2	*I was confident that I would master all of the technical skills.*	1 1.2%	4 4.8%	15 18.1%	42 50.1%	21 25.3%	3.94	.860
1.3	*I was confident that I could perform admirably on the DST assignments.*	1 1.2%	7 8.4%	23 27.7%	37 44.6%	15 18.1%	3.70	.907

Notes: SD=strong disagree, D=disagree, N=neither agree nor disagree, A=agree, SA=strongly agree, SD= standard deviation

Table 7 summarizes the findings on students' assessments of the usage of DST to boost their confidence. Overall, the participants thought that the use of DST in language teaching was fair. Participants' confidence in completing the DST project has the highest mean score (item 1.1: M = 3.99, SD =.789), followed by technical abilities (item 1.2: M = 3.94, SD =.860), and lastly the DST tasks (item 1.3: M = 3.70, SD =.907). The table indicates that the majority of students expressed confidence in completing the DST project successfully, mastering technical skills, and performing well on assignments. Three items were above the midpoint of the scale, indicating a generally positive perception of confidence among the students.

According to the interview results, all respondents felt that using the DST project increased their confidence in speaking English and performing in front of the camera. As student 5 said: "*DST is an effective way to tell my stories because it trains me to be more confident when performing in front of the camera*" [Online comments, Participant#6]. This little disagreement was mentioned as a topic for research throughout the interviews. On the bright side, for a variety of reasons, five students felt confident in their abilities to complete the work. One student, for

example, had previously written a wonderful story and was confident in her abilities. Furthermore, the students' perception of the activities as entertaining made them feel more confident. As an example, one student stated: "*I feel more confident to speak in English now even when my friends are laughing at if I make mistakes while speaking. I feel free to do the recording*" [Online Interview with Participant #3].

Despite the general positive trend, two students were concerned about their ability to complete the assignments. They gave several reasons for their concern. The perceptions of students' English skills tend to be the most significant. This was because some students believed that their English was inferior to their peers and that their classmates' films would be superior. As one student put it, "*It's because I'm not very good at English, and when I was making my films, I was constantly thinking that my friends who were better at English would do better, so I wasn't certain that I'd do as well as they would. It makes me feel uncomfortable*" [Interview, Participant #9].

3) Student perceptions about participation

Three questionnaire items examined whether students found the DST tasks entertaining. According to the mean scores, all of the things were agreed upon by the students. Table 8 shows the statistics on students' perceptions of using DST to maintain their formal engagement. Overall, participants were intrigued by the usage of DST in language classes. The highest mean score was given to participants who had complete control over their learning while working on the DST project (item 1.5: M = 4.10, SD =.905), followed by the DST tasks being extremely engaging (item 1.4: M = 3.67, SD =.938), and finally the content of the DST tasks being important to me (item 1.6: M = 3.63, SD =1.033). The table shows that most of the students were involved in the DST project, but there were some differences in how they felt about being involved and having control over learning.

Table 8.

Survey items regarding the students' perceptions related to their engagement

Items	Contents surveyed	SD	D	N	A	SA	Mean	SD
1.4	*The DST tasks were very engaging.*	1 1.2%	8 9.6%	24 28.9%	34 41%	16 19.3%	3.67	.938
1.5	*When doing the DST tasks, I controlled my learning.*	1 1.2%	4 4.8%	12 14.5%	35 42.2%	31 37.3%	4.10	.905
1.6	*The content of the DST tasks was meaningful to me.*	3 1.2%	9 8.4%	20 27.7%	35 44.6%	16 18.1%	3.63	1.033

The qualitative results back up the quantitative data by revealing that the DST projects piqued the students' curiosity. "*I think, not only did DST afford me the chance to use my English naturally in speaking and writing in class but also it afforded me the opportunity to use and share ideas in English outside the classroom*" [Online Interview, Participant #4]. The online questionnaires and weekly reflections revealed three major factors. To begin with, the majority of students felt that working on the DST assignments was entertaining, difficult, and intriguing. Secondly, students felt interested and could engage in DST activities for an extended period of time, especially when compared to other types of tasks, such as paper-based ones. "*I am the*

sort of person who cannot just sit on the desk and read books for a long time," one participant said, "*but doing this is like reading books in a different pattern. For example, the Wevideo tool allows me to listen to my voice over and over again while filming my video. It reminds me to avoid making errors especially in pronunciation and am waiting to do another video.*" [Online Interview, Participant #1]

4) Students' attitudes related to motivation

Three questions examined students' motivational views regarding the DST project. The mean ratings in Table 9 show that the majority of students agreed with all of the statements in this area and saw DST as encouraging.

Table 9.

Survey items regarding the students' perceptions related to Motivation

Items	Contents surveyed	SD	D	N	A	SA	Mean	SD
1.7	*The DST project made me like English more.*	2 2.4%	5 6%	16 19.3%	44 53%	16 19.3%	3.81	.903
1.8	*The DST project was interesting.*	2 2.4%	3 3.6%	20 24.1%	43 51.8%	15 18.1%	3.80	.866
1.9	*The DST project was challenging.*	5 6%	9 10.8%	27 32.5%	28 33.7%	14 16.9%	3.45	1.085

The DST initiative had the participants a deep appreciation for English, according to the vast majority of students (72%). Similarly, a large number of students (69%) believed that the DST project was intriguing. Furthermore, a sizable majority (50%) considered the DST project difficult to complete. Regarding item 1.7, 2.4% of respondents strongly disagreed with the statement, 6% disagreed, 19.3% neither agreed nor disagreed, 53% agreed, and 19.3% strongly agreed. The students found the DST project to be interesting, with a mean score of 3.80 for item 1.8, and the DST project made the students like English more, with a mean score of 3.81 for item 1.7. However, the DST project was also perceived to be challenging by the students, the mean score for item 1.9 was 3.45. This could have had a negative impact on their motivation. Furthermore, the standard deviation values indicated that there were some variations in responses. For example, the standard deviation for item 1.9 was high (1.085), suggesting that there were significant individual differences in how the students perceived the project. In conclusion, the table indicates that the students had a positive perception of the DST project in terms of motivation, but there were also some variations in individual responses, especially related to the perceived challenge of the project.

According to the interviews, the DST project was motivating, engaging, demanding, and enjoyable for the participants. The majority of participants said that the DST research made them feel more involved in studying English and that they eventually loved the language more. According to one participant: "*At first, it was difficult to create a video, but after guidance from my friends and teacher, I can do it. Now, I can create a video in English to present my stories and ideas. It also motivates me to self-check and corrects myself in order to speak fluently without any hesitance*" [Interview with #2 Participant]. Furthermore, when compared to a traditional classroom, the majority of students claimed that using a multimedia tool like DST

helped them feel more motivated and interested in studying English as one participant stated: "*Well, if you compare it with traditional English learning, learning through the DST project attracts my interest. I am involved in creating my own movie, and I feel that it's my own work. This really makes me feel motivated and I learned English from doing this as well. It is also fun to watch my friends' shared videos, and I learn a lot from them. I can listen to their voices. I can leave constructive comments too*" [Interview with Participant No. 8]. According to several participants, working on the DST project was more like playing a game than working on an academic assignment. Therefore, they were more excited about it. Overall, students saw DST as motivating, and no negative feelings were expressed about it.

5) Attitudes of students toward language skill development

Two questionnaire items were designed to elicit participants' perceptions of DST activities' impact on language learning.

Table 10.

Survey items regarding the students' perceptions related to Language Skills Development

Items	Contents surveyed	SD	D	N	A	SA	Mean	SD
1.10	*The DST project helped me improve my language skills.*	8 9.6%	6 7.2%	22 26.5%	28 33.7%	19 22.9%	3.53	1.203
1.11	*The DST project helped me develop my language areas.*	4 4.8%	10 12%	15 18.1%	34 41%	20 24.1%	3.55	1.074

The descriptive statistics in Table 10 show that the participants agreed with all the statements in this category. A survey item in Table 10 was used to measure students' perceptions related to their language skills development through the DST project. There is a five-point Likert scale for responses, ranging from strongly disagree to strongly agree. A slightly higher percentage (65%) agreed that the DST project helped them to improve their language areas. A fair number of the students (56%) reported that they had improved their language skills in the project. Item 1.10 asked if the DST project helped students improve their language skills, and the mean score was 3.53, which was a neutral-to-agree answer. The standard deviation was high at 1.203, so responses were very different from each other. Item 1.11 inquired whether the DST project helped students develop their language areas, and the mean score was 3.55, indicating a neutral-to-agree answer. It was found that there was moderate variation in response rates. The mean value of the standard deviation was 1.074. The majority of participants in the DST project believed that it helped them strengthen their vocabulary and grammar, particularly when they responded to open-ended questions and were interviewed. Students reported the following in terms of vocabulary: "*This project helps me to improve my English skills as well as language areas. Making presentations allows me to correct my pronunciation from my friends' valuable comments*" [Interview, Participant #10].

6) Students' attitudes related to Interpersonal

One item in the questionnaire intended to elicit participants' perceptions of DST tasks' influence on Interpersonal Relationships.

Table 11.

Survey items regarding the students' perceptions related to Interpersonal Relationships

Items	Contents surveyed	SD	D	N	A	SA	Mean	SD
1.12	*The DST project helped me strengthen my relationship with friends through group work, peer assessment, and ideas exchange.*	2 2.4%	8 9.6%	24 28.9%	31 37.3%	18 21.7%	3.8	.866

Table 11's descriptive statistics show that this group's members agreed with the statement. The DST project was beneficial more than half of the students (59%) develop their beautiful friendships. Item 1.12 inquired whether the DST project helped students strengthen their relationships with friends through group work, peer assessment, and idea exchanges. The mean score was 3.8, indicating a neutral-to-agree response. It is suggested that there was a moderate agreement among the respondents since the standard deviation was 0.866. In response to open-ended questionnaires and interviews, most participants thought that the DST project helped them improve their interpersonal relationships, as one student stated: "*This technique increases my relationship with friends through group work, peer review, and ideas sharing*" [Online comments, Participant #15].

7) Findings on the deep troubles encountered in the DST process

The issues that students experienced while developing DST were examined in three categories: script development, related visual video search, and software testing. The qualitative data were divided into three categories, seven codes, and six direct citations, as given in Table 12.

Table 12 shows that the students encountered three sorts of technical difficulties during the implementation of DST. Four categories of issues are included in the table: scriptwriting, finding related images-videos, attempting to use the software, and minimal just-in-time training. Under each category, the table shows the code assigned to the problem, the frequency of the problem encountered, and some sample sentences that describe the issue. Major problems identified were insufficient background/content knowledge and inability to write scripts in English due to poor vocabulary and bad grammar, with a frequency of 35. Students had difficulties creating scripts, locating photos or videos, and attempting to use a new app. It is tough for students to prepare an original script since they lack a solid background knowledge of the course subject. Students also desperately struggled with script content preparation, text stability, and fluency. "*I have problems writing the script due of my limited knowledge, weak vocabulary, and bad grammar*," the ST11 student explained. The participants were classified as ST1, ST2, etc.

Table 12.

The problems encountered during DST development

Category	Code	f	Sample sentences
Scriptwriting	Insufficient background/content knowledge	35	ST11: "*I had difficulty writing the script because of my limited knowledge, poor vocabulary and bad grammar*".
	Inability to write scripts in English because of poor vocabulary and bad grammar	22	ST2: "*Translating it in English was more difficult than writing it in English because it required many different words, sentence patterns, phrases and collocations. We were under a lot of stress*".
		22	ST20: "*We faced a lot of grammar mistakes. Everyone used a different grammar style so there was a fierce conflict about which one to use*".
Finding the related images-videos	Difficult in finding an illustrated picture/video	13	ST4: "*First I wrote the script, but I couldn't find any related photos that fit what I wanted. I searched a lot. It took me too long to find the right illustrations*".
Trying out the software	Seriously lagged apps		
	Technical Difficulties in adjusting character movements	45	ST8: *"Another challenge is our dearth of knowledge of how to operate WeVideo. We did understand what you have shown us but during the process it was a bit difficult."*
	Stark language choices in software	20	ST15: "*In high school, we didn't use technology very often, so some friends and I weren't used to trying out new apps*".
	Minimal just-in-time training	15	

The category "difficulties with software usage" consists of four codes. The most often used code is for technical problems (f = 45). Here is an example expression from ST8: "*Another difficulty is our lack of understanding on how to use WeVideo. We did understand what you have shown us, however the procedure was a little challenging*". There is one code for finding related images-videos categories. The most often repeated code among them is difficulties in locating an illustrated picture or video (f= 22). As an example, one student stated:

> "*I started by writing the narrative, but I couldn't locate any comparable photographs that suited what I was looking for." I looked everywhere. It took me much too long to find the right illustrations*." [Interview, Participant #7]

Students encountered technical issues while trying out new apps, such as excessively lagged apps, insufficient technical guidance, and minimal just-in-time training. One participant emphasized:

> "*In high school, we didn't use technology very often, so me and some friends had a hard time installing and using new apps.*" [Interview, Participant #9]

8) Findings on the Benefits and Drawbacks of the DST Process

Several classifications are used to categorize students' perspectives on the benefits and drawbacks of implementing DST. The codes and the direct citations that go with them are included in Table 13.

Table 13 shows that the codes linked with DST's benefits vastly outweighed the disadvantages. DST should be used more frequently in the EFL classroom since its benefits greatly exceed its drawbacks. There are three subcategories within the benefits category: creative, entertaining, and motivational, with 36, 40, and 20 sample sentences, respectively. In the sample sentences, one benefit mentioned is that it stimulates creativity and generates interesting and engaging content. The drawbacks category also contains three subcategories: time-consuming, time shortages, and technical issues, with 38, 25 and 17 sample sentences, respectively. Some drawbacks mentioned in the sample sentences include difficulty managing time effectively, technical issues such as poor WiFi connections, and the need for help from others. Students said that the most important benefit of using digital stories in the classroom or creating digital stories was that it was fun, motivation, and creativity in the pros category. "*It was interesting because we had fun and created a project together*," remarked the ST8 student. *It's amazing to show everyone our story and hear all the positive feedback*." There are three codes in the area of digital storytelling contributions. The most often used code is entertaining (f = 40). This code demonstrates that the students loved the process of creating digital stories and considered this to be their most important contribution. Here is an example expression:

> *"It's a fun and pleasant piece of software. It was fantastic. I had some difficulties, but I am pleased. This helped me focus on staying successful rather than giving up. It appears to me to be a useful exercise."* [Group focus Interview, Participant #1]

Table 13.
Benefits and drawbacks of DST

Category	Code	f	Sample Sentences
Benefits	Creative	36	ST2: "*While we were working on storyboards and scripts as a team, many ideas came up. Despite the disparate and ludicrous ideas, it fueled our creativity*".
	Entertaining	40	ST8: "*It was interesting because we had fun and created DST together. Showing our stories to everyone, and hearing all the good reviews was priceless*".
	Motivational	20	ST3: "*I was happy and proud of my final product. I was striving for the better even when I finished*".
Drawbacks	Time-consuming	38	ST11: "*When I treated DST as my major task, it took a long time to plan, compile, and analyze*."
	Time shortages	25	ST15: "*Tight deadlines drive me crazy and make me feel stressed*".
	Tenuous wifi connection	17	ST6: "*Internet was so slow. We wasted a lot of time looking for a wifi spot*".
	getting help from friends	30	ST19: *"When I couldn't find the tools and had problems with using the software, I asked for help from my friends."*

Under the challenging phases encountered, there are four codes. Time constraints (f = 35) is the most often used code. There are four codes under the difficult stages faced. The most repeated code is time shortages (f = 35). An example expression is as follows:

> "*Tight deadlines drive me crazy and make me feel stressed*". [Group focus Interview, Participant #4]

There are two codes under the coping strategies for difficulties. Getting support from friends is the most repeated code (f = 30). This rating indicates that when students are in trouble, they usually seek assistance from their peers. An example expression is as follows:

> *"When I couldn't find the tools and had problems with using the software, I asked for help from my friends."* [Online comments, Participant #35]

Under the shortcomings of digital storytelling, there are two codes. The most often repeated code is that creating a digital story takes too much time (f = 38). This code illustrates how students consider the time required for digital storytelling as one of the project's drawbacks. Here is an example expression:

> "*If the instructor creates a digital story, it may take longer. The topic may not be included in the curriculum.*" [Online comments from Participant #40]
>
> "*When I treated DST as my major task, it took a long time to plan, compile, and analyze*." [Online comments, Participant #51]
>
> "*I had trouble utilizing the program. Others aren't as complex as this, but I had problems because it was my first time using this software*." [Online comments from Participant #65]

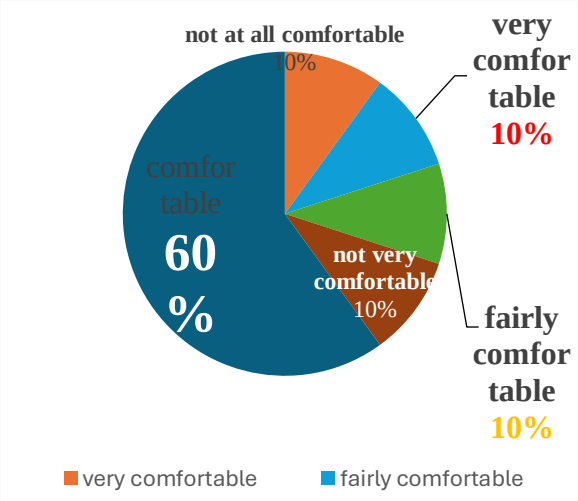
Another difficult challenge in this learning process is time shortages and a tenuous WiFi connection. The ST4 student said: "*The limited time to complete the task is a big challenge for me. We need more time to complete the assignment because we had too much homework from other courses*".

> "*Internet was so slow. We wasted a lot of time looking for a WiFi spot*". [Group focus Interview, Participant #6]

9) Findings on level of comfort with DST use

Figure 7.

Level of comfort with the DST use



As shown in Figure 7, four-fifths of respondents (80%) felt extremely comfortable using DST in the EFL classroom. In day-to-day group activities, just a fifth (20%) felt uncomfortable with it.

10) Findings on results from peer and teacher evaluation

The Digital Storytelling Project has a total score of 3 points. Students are provided a scoring rubric with specific instructions on how to evaluate work based on the five scales listed to assess the work of their peers (see Figure 6). To complete the assessment, students must mark the boxes on the worksheet in Figure 6. Students and instructors adopt the same grading criteria to encourage remarkable consistency. Incorporating students in peer assessment prepares them to function as effective instructors, objectively peer-review, and learn from their peers' creative work. The data received from student and instructor assessments are shown in the table below (see Table 14).

Table 14.

Results from peer and teacher assessment

Group No.	Peer (30%)	Teacher (70%)	Final Score
G1	93 (27.9)	87 (60.9)	88.8
G2	66 (19.8)	70 (49.0)	68.8
G3	81 (24.3)	75 (52.5)	76.8
G4	70 (21.0)	68 (47.6)	68.6
G5	82 (24.6)	85 (59.5)	84.1
G6	80 (24.0)	78 (54.6)	78.6
G7	65 (19.5)	67 (46.9)	66.4
G8	85 (25.5)	90 (63.0)	88.5
G9	71 (21.3)	75 (52.5)	73.8
G10	90 (27.0)	92 (64.4)	91.4
G11	75 (22.5)	80 (56.0)	78.5
G12	55 (16.5)	57 (39.9)	56.4
G13	85 (25.5)	87 (60.9)	86.4
G14	87 (26.1)	90 (63.0)	89.1
G15	76 (22.8)	80 (56.0)	78.8
G16	80 (24.0)	90 (63.0)	87.0
G17	77 (23.1)	80 (56.0)	79.1
G18	75 (22.5)	80 (56.0)	78.5
G19	79 (23.7)	80 (56.0)	79.7
G20	58 (17.4)	60 (42.0)	59.4
Mean Score	**76.5**	**78.55**	**77.9**

Table 14 above shows the results from peer and teacher assessments for 20 different groups (G1 to G20), of which peer assessment accounts for 30% of the final score, while teacher assessment accounts for 70% of the final score. The final score is the average of the two assessments. The table displays the scores of each group for peer assessment, teacher assessment, and the final score. The scores are presented in numerical values and percentages. It is estimated that the mean score for peer assessment is 76.5, while the mean score for teacher assessment is 78.55. For all the groups, the mean final score is 77.9. Each group's performance is presented in the table based on the assessments. The highest final scores are for G10 (91.4), G14 (89.1), and G8

(88.5), while the lowest final scores are for G12 (56.4), G20 (59.4), and G7 (66.4).

Discussion

The present study's findings align with and build upon the existing body of research on the use of digital storytelling (DST) in language learning. Consistent with prior studies, the results indicate that DST can positively impact student engagement, confidence, and motivation (Gils, 2005; Ahmad & Yamat, 2020; Ohler, 2022).

The high levels of student engagement observed, particularly during the presentation phase, echo the findings of Gils (2005) who noted that the multimodal nature of DST, engaging the senses of sight, sound, and touch, can foster greater learner involvement. The students' self-reported enjoyment of the project and perceived learning gains from the collaborative elements, such as group discussions and peer feedback, align with researching the social and constructivist benefits of DST (Mirza, 2020; Bui et al., 2021; Windy & Chakim, 2023).

An important contribution of the current study is the in-depth examination of students' perceptions and the specific challenges they faced during the DST process. The struggles with technical aspects like video recording and software use echo findings from previous studies (Yang et al., 2020; Murad et al., 2023), underscoring the need for adequate technical support and scaffolding, particularly when students are new to the DST approach.

The implications of these findings extend beyond the specific context of the study. The positive impacts on student engagement, confidence, and motivation suggest that DST could be a valuable pedagogical tool across a range of educational settings and subject areas, not just language learning. Integrating DST into classrooms, whether for primary, secondary, or tertiary students, could help foster active learning, collaborative skills, and creative expression.

However, the technical challenges identified in this and other studies indicate that the successful implementation of DST requires careful planning and support. Educators should consider providing students with training on the necessary software and hardware and opportunities to practice the technical aspects before embarking on more complex DST projects. Additionally, ensuring reliable access to technology infrastructure, such as stable internet connectivity and adequate device availability, can help mitigate the logistical hurdles.

Furthermore, the findings suggest that DST may be particularly beneficial for certain learner populations, such as those struggling with traditional forms of language learning or expression. DST's multimodal and creative nature can help engage and motivate these students, while providing them with alternative avenues for demonstrating their understanding and skills.

In summary, the present study contributes to the growing body of evidence supporting the use of digital storytelling in language education and beyond. By comparing the findings with previous research and exploring the broader implications, this discussion underscores the potential of DST as a powerful pedagogical approach that can foster student engagement, confidence, and learning across diverse educational settings.

Taking all of the above factors into account, the study's primary goal was to examine the influence of digital storytelling on non-English majoring language learners rather than to do a descriptive analysis. The study's fundamental goal was to capture the significant benefits and close ties of employing digital storytelling to investigate student engagement, confidence, and motivation and students' widely held perception of DST as a useful pedagogical tool.

1) Improving student engagement, confidence and motivation

According to the findings of this study, student involvement ranges from moderate to high. In other words, students are more engaged in the lesson. The study's findings also revealed that students showed extremely low involvement when completing their storyboards and strong engagement when presenting their finished works on occasion. A questionnaire and teacher observations were examined to obtain students' perceptions of the study. The questionnaire findings showed that the students enjoyed the project and are confident that they gained much from the group discussions, cooperation, peer correction, and self-study. They struggled with recording, drafting the screenplay, and formatting the story. The students were inspired when they saw their artwork exhibited in front of the entire class. As a result, they are more likely to take on more projects utilizing Digital Storytelling Technology in the future. Another conclusion from Gils' comprehensive research indicates that students are more likely to engage in real-world interactions because DST offers the comparative benefit of engaging three separate senses: hands, eyes, and ears (Gils, 2005). Also, suffice it to state that DST is useful in students' fundamental reinforcement work, particularly for teenagers who struggle with speaking and writing. According to Ohler (2022), digital storytelling has a significant positive impact on assisting students to become true storytellers rather than passive consumers of information.

2) Evaluation criteria based on Overall Performance Impact

Table 14 displays the average scores for the given assessment criteria for 20 specific case studies. The study's findings revealed that university students were satisfied with the story's essential elements such as storyline, pace, soundtrack, characters, and story theme. This is because they meticulously planned their storyboard. The fact that they spent more time writing and editing their stories was critical to their success. Only Groups 12 and 20 have a bad track record in terms of soundtrack and plot. This greatly impacted their "Plot" and "Soundtrack" scores.

3) Gaining student perceptions of their learning through DST

On the bright side, the good news is that students are overwhelmingly positive about using DST in EFL classrooms. Students indicated that DST enhanced their use of technology in the classroom. The study found that students encountered three types of difficulties (screenwriting, video-visual development and software application) in digital development work. During the script writing phase, the learners face serious difficulties such as lack of knowledge of the field and background knowledge or not finding the right photo for their script. Furthermore, the study was defined by students, the obvious points of DST including the time-consuming approach, severe time constraints, and weak WiFi connections. Nevertheless, the students fully appreciate the benefits of DST because it is fun, motivating and creative. In a pilot study, Ahmad and Yamat (2020) reported that students' status files changed since they considered DST fun and enjoyable.

The bulk of the literature on the subject of digital storytelling served as the basis for this study. The results suggest that digital storytelling enhances student-teacher interaction, develops cooperation, makes learning more fun, and increases involvement throughout the course. Yang and Wu (2021) note that there are numerous tools available for creating digital stories. However, it is crucial to select a tool appropriate for the students' age and grade level, while also considering the complexity of the software. There is abundant evidence to demonstrate that the participants primarily struggled with the program. Due to time-consuming tasks or technical difficulties, as well as the software language, this may also be linked to the fact that using such

software was new for the students. In this line, Roy (2024) offers support, noting that the participants needed technical assistance and that the implementation process took a lot of time. This is strongly supported by Arroba & Acosta (2021), who assert that the students had difficulty with digital storytelling because it was their first time using the software. Participants said that digital storytelling promotes cooperation and communication among students and their understanding of the subject matter; however, the author noted that some may need technical support throughout the process. It should be noted that providing users with technical support before they create digital stories and paying for their software and hardware requirements will aid the entire process. According to Lambert (2021), language instruction is one of the most crucial domains for implementing digital storytelling. Vice et al. (2023) state that digital storytelling improves vocabulary learning. For students of all ages and grade levels who want to create their own digital stories, digital storytelling may be a wonderful instructional tool (Robin, 2020). Based on the findings of this study, it is possible to predict that integrating digital storytelling in language education courses would provide beneficial effects.

Limitations and suggestions for future research

The following are some of the study's key drawbacks. To begin, numerical data from 83 undergraduate students at a university in a certain country have a small sample size and are limited by the large environment. As a result, the outcomes should be seen as exemplary rather than usual. Besides, this study was heavily influenced by constructive feedback from General English students. Furthermore, this article did not provide feasible alternatives to employing the DST software, nor did it systematically examine the best length of time to use the DST to enhance the efficacy of learning English. Most importantly, this paper should be read numerous times to critically investigate and fully comprehend the flip side of the coin and the barriers to it.

Since this study lasted just five weeks, a longitudinal study (one semester) is recommended. Since this study is limited to students' perceptions of their potential for language acquisition and motivation, the true impact of DST on language learning and motivation should be examined. Quasi-experimental research and/or longitudinal studies leveraging pre-/post-tests should be carried out to evaluate the significant contributions of DST in language learning situations so that instructors have a clearer understanding of DST's performance when considering using it in their own classrooms.

Additionally, the qualitative research that was selected for this study is also one of the possible weaknesses of the research, as it is often full of wrong turns and mistakes. In order to make this paper as meaningful as possible, I felt it necessary to address some of the fundamental weaknesses of the study as follows:

• **Missing data**: As I mentioned earlier when I started the data analysis phase, I noticed that the response from Google Docs didn't get the expected response. Thus, the opportunity to collect this accurate data was lost.

• **Member checks**: Given the considerable time between data collection and analysis in the study, I could only perform one member check with the participant. However, this proved useful as the participant confirmed that the account was specific and trustworthy.

Conclusion

The use of digital storytelling in higher education is still in its infancy but has offered a new approach for students to present work and reflect on their work, as predicted by Gregori-Signes

(2008a, p. 6): "*Digital storytelling has the edge of being a new genre for most students, it sparks interest and is therefore probably a good way to boost student efforts*". The findings of this study suggest that incorporating digital storytelling (DST) in higher education language courses can positively impact student engagement and linguistic development. Students reported finding the DST tasks to be fascinating and engaging and believed that the DST project improved their language skills. These results challenge the notion that engagement and motivation cannot coexist in academic tasks, as proposed by Russell et al. (2005). However, it is important to note that this was a small-scale, exploratory case study conducted at a single institution. To build on these initial findings, future research should:

- Expand the sample size and include participants from diverse educational backgrounds, such as English majors and more advanced language learners. This will help establish the generalizability of the results.
- Investigate the specific affordances of different digital storytelling tools and technologies and how their features impact language acquisition and student motivation. This could involve comparative studies of various DST platforms and approaches.
- Assess the long-term effects of DST integration on student outcomes, such as language proficiency, critical thinking, and digital literacy skills. Longitudinal studies would provide valuable insights into the sustained benefits of this pedagogical approach.
- Explore the instructor's role in designing and facilitating effective DST-based learning experiences. Gathering feedback from educators on the challenges and best practices for implementing DST would inform professional development and support for wider adoption.
- Incorporate qualitative methods, such as interviews and classroom observations, to better understand the student experience and the nuances of DST integration in different educational contexts.

By addressing these areas for future research, scholars can better understand how digital storytelling can be leveraged to enhance language learning and student engagement in higher education. The findings from this study suggest that DST is a promising pedagogical approach, but further exploration is needed to realize its full potential. Last but not least, the affordances of various forms of technology must be considered when assessing how they can be used to improve language acquisition and student motivation so that students can study well using the technologies at their disposal.

"Pedagogy is the driver, technology is the accelerator"

(Merzifonluoglu: 2018, p.67 as cited in Fullan & Quinn et al 2015, p.82)

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The primary goal of this study was to examine students' complete awareness and profound satisfaction with the application of DST in classrooms with non-English majors. The findings of this research provide a fresh theoretical contribution to the use of DST in foreign language education in Vietnam and present an excellent overview of how DST may be used in language classrooms in a targeted manner. As a result, this pioneering study's beneficial contributions are expected to significantly influence educational policy and practice.

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References

Ahmad W. I. W. & Yamat H. (2020). Students' perception on learning English language through conventional and digital storytelling, *International Journal of AcademicResearch in Business and Social Sciences*, 10(2), 484–504. DOI: https://doi.org/10.6007/IJARBSS/v10-i2/6945

Alexander B. (2011). *The new digital storytelling: Creating narratives with new media*. ABCCLIO. Greenwood Publishing Group.

Arroba, J., & Acosta, H. (2021). Authentic digital storytelling as an alternative teaching strategy to develop speaking skills in EFL classes. *LEARN Journal: Language Education and Acquisition Research Network*, 14(1), 317–343.

Miller, A. & Mills, B. (2019). 'If They Don't Care, I Don't Care': Millennial and Generation Z Students and the Impact of Faculty Caring.Journal of the Scholarship of Teaching and Learning,19(4), 78-89.

Balaman F. (2016). The effect of digital storytelling technique on the attitudes of students toward teaching technologies, *Pegem Journal of Education and Instruction*, 6(2), 147-168.

Brown J., Bryan J., & Brown T. (2006). Twenty- first century literacy and technology in K–8 classrooms. *Innovate*, 1(3), 2005. Retrieved March 20, 2006, from http://www.innovateonline.info/index. php?view=article&id=17

Bui, T. X. T., Ha, Y. N., Nguyen, T. B. U, Nguyen, V. U. T, Ngo, T. C. T. (2021). A study on collaborative online learning among EFL students in Van Lang University (VLU). AsiaCall Online Journal, 12(3), 9-21. Retrieved from https://asiacall.info/acoj/index.php/journal/article/view/32

Castañeda, M. E. (2013). "I am proud that I did it and it's a piece of me": Digital storytelling in the Foreign language classroom. *CALICO Journal*, 30(1), 44–62.

Castañeda, M. E., & Çalışkan, H. (2019). The effect of digital storytelling on EFL students' speaking anxiety. *The Turkish Online Journal of Educational Technology*, 18(1), 44–56. Center for Digital Storytelling Website (2005). http://www.storycenter.org/history.html

Cohen, L., et al. (2004). *A Guide to Teaching Practice* (5th ed.). London: Routledge.

Creswell J. W., & Plano V. L. (2015). *Clark, Karma Yöntem Araştırmaları: Tasarımı veYürütülmesi* [Designing and conducting mixed methods research].

Dey I. (1993). *Qualitative Data Analysis: A User Friendly Guide for Social Science*. London: Routledge. DOI: http://dx.doi.org/10.4324/9780203412497

Chau, K. G. (2021). The Effect of ICT on Learners' Speaking Skills Development. International Journal of TESOL & Education, 1(1), 22–29. Retrieved from https://i-jte.org/index.php/journal/article/view/4

Du, T. M., Nguyen, T. N., & Le, N. A. (2024). Improving first-year English-majored students' speaking skills through using digital storytelling. *International Journal of Language Instruction*, 3(2), 29–44. https://doi.org/10.54855/ijli.24323

Gregori-Signes C. (2008a). Practical uses of digital storytelling, CD_Publication.

Hafner, C. A., & Miller, L. (2011). Fostering learner autonomy in English for science: A collaborative digital video project in a technological learning environment. *Language Learning & Technology*, 15(3), 68–86.

Hwang W., Shadiev R., Hsu J., Huang Y., Hsu G. & Lin Y. (2014). Effects of storytelling to INTED2007 Proceedings. ISBN: 978-84-611-4517-1.

Jakes D. S., & Brennan J. (2007). Capturing stories, capturing lives: An introduction to digital story-telling, 2005. Retrieved May 2, 2007, from http://www. jakesonline.org/dstory_ice.pdf

Kajder S. (2006). Enter here: Personal narrative and digital storytelling. *The English Journal*, 93, 64-68. DOI: https://doi.org/10.2307/4128811

Kukul, V. (2024). Should I use digital storytelling in my future classroom? Why or why not? Investigating pre-service math teachers' acceptance of digital storytelling. *E-Learning and Digital Media*, 21(1), 70-86. https://doi.org/10.1177/20427530231156173

Kuyvenhoven, J. (2009). *In the presence of each other: A pedagogy of storytelling*. University of Toronto Press.

Lambert, J. (2013). *Digital storytelling: Capturing lives, creating community*. Routledge.

Lambert, J. (2021). Overcoming challenges in digital storytelling for language learning. *Journal of Educational Media*, 16(4), 245–259.

Le H. (2020). Using Digital Storytelling in Vietnam, Retrieved March 14, 2022, from https://www.academia.edu/35951148/using_digital_story_telling_in_Vietnam_docx

Mahmawati, D., & Mubayyinah, S. (2024). Storytelling method to improve the students' speaking skill for the class x students of Ma Miftahul Midad Lumajang in academic year of 2023/2024. *Mastery: Master of English Language Journal*, 2(1), 149–163. Retrieved from https://ejournal.stitmiftahulmidad.ac.id/index.php/mastery/article/view/113

Marta T. (2024). Digital Storytelling: Changing Learners' Attitudes and Self-efficacy Beliefs. *Applied Linguistics*, Volume 45, Issue 1, Pages 65–87. https://doi.org/10.1093/applin/amad002

Matthews-Denatale G. (2008). *Digital Storytelling: Tips and Resources*. Boston, MA: Simmons College.

Maylia, A. (2021). *The Teaching of Speaking Using Storytelling* (Doctoral dissertation, Universitas Islam Kalimantan MAB).

Microsoft (2008). Microsoft Photo Story 3 for Windows, 2007. Retrieved July 20, 2008, from http://www.microsoft.com/photostory

Mirza, H. S. (2020). Improving university students' English proficiency with digital storytelling. *International Online Journal of Education and Teaching (IOJET)*, 7(1), 84-94. http://iojet.org/index.php/IOJET/article/view/668

Morra, S. (2013). 8 Steps To Great Digital Storytelling, Retrieved December 08, 2014. From https://samanthamorra.com/2013/06/05/edudemic-article-on-digital-storytelling/

Mullen R., & Wedwick L. (2008). Avoiding the digital abyss: Getting started in the classroom with YouTube, digital stories, and blogs, The Clearing House: *A Journal of Educational Strategies, Issues and Ideas*, 82(2), 66-69.

Murad, T., Assadi, J., & Badarni, H. (2023). Digital storytelling and EFL speaking skill improvement. *Journal of Language Teaching and Research*, 14(4), 1189-1198. DOI: https://doi.org/10.17507/jltr.1405.06

Nair, V., & Yunus, M. (2021). A systematic review of digital storytelling in improving speaking skills. *Sustainability*, 13(7), 9829. DOI: https://doi.org/10.3390/su13179829

Nair, V., & Yunus, M. (2022). Using digital storytelling to improve pupil's speaking skills in the age of COVID-19. *Sustainability*, 14(15), 9215. DOI: https://doi.org/10.3390/su14159215

Niemi, H., & Multisilta, J. (2016). Digital storytelling promoting twenty-first century skills and student engagement. *Technology, Pedagogy and Education*, 25(4), 451–468.

Ohler J. (2008). Digital storytelling in the classroom: New media pathways to literacy, learning, Thousand Oaks, CA: Corwin Press.

Ohler J. (2013). Digital storytelling in the classroom: New media pathways to literacy, learning, and creativity, Corwin Press.

Ohler J. (2021). Digital literacy and storytelling in education. *Journal of Digital Learning*, 14(2), 110–125.Ohler J. (2022). The future of digital storytelling: AR and VR integration. *Journal of Emerging Technologies*, 5(3), 88–100.

Pardo B. S. (2014). Digital Storytelling: A case study of the creation, and narration of a story by *EFL Learners, Digital Education Review*, (26), 74-84.

Partnership for 21st Century Skill (2004). Proceedings of Society for Information Technology and Teacher Education International Conference, pp. 709-716. Chesapeake, VA: AACE.

Rance-Roney J. (2008). Digital storytelling for language and culture learning. *Essential Teacher*, 5, 1, pp. 29–31.

Robin B. (2005). Educational uses of digital storytelling, Main directory for the educational uses of digital storytelling, Instructional technology Program, University of Huston. Retrieved from http://www.coe.uh.edu/digital-storytelling/introductiontroduction.htm

Robin, B. (2006). The educational uses of digital storytelling. *Technology and Teacher Education Annual*, 1, pp.709.

Robin B. (2008). Digital storytelling: A powerful technology tool for the 21st century classroom, *Theory into Practice*, 47(3), pp.220 228. DOI:0.1080/00405840802153916

Robin B. R. (2016). The power of digital storytelling to support teaching and learning. *Digital Education Review*, 30, pp. 17-29.

Robin, B. R., & McNeil, S. G. (2012). What educators should know about teaching digital storytelling. *Digital Education Review*, (22), 37-51.

Robin, B. (2020). Digital storytelling in education: An overview. *Educational Technology Research and Development*, 68(3), 205–220.

Roy, A. (2024). Impact of Digital Storytelling on Motivation in Middle School English Classrooms. *International Journal of Computer-Assisted Language Learning and Teaching* (IJCALLT), 14(1), 1-20. http://doi.org/10.4018/IJCALLT.353434

Russell V. J. et al. (2005). Student motivation and Engagement, Schooling Issues Digest, Australian Government, Department of Education, Science and Training.

Smeda, N., Dakich, E., & Sharda, N. (2014). The effectiveness of digital storytelling in the classrooms: a comprehensive study. *Smart Learning Environments*, 1(1), 1–21.

Schmidt C. (2004). The analysis of semi structured interviews. A companion to qualitative research, 2004, London: Sage. The Digital Storytelling Association (10/5/2014). The center for digital storytelling, 2011; Available from: http://electronicportfolios.com/digistory/

Shahid, M., & Khan, M. R. (2022). Use of Digital Storytelling in Classrooms and Beyond. *Journal of Educational Technology Systems*, 51(1), 63–77. https://doi.org/10.1177/00472395221112599.

Shinas, V. H., & Wen, H. (2022). Preparing teacher candidates toimplement digital storytelling. *Computers and Education Open*, 3, https://doi.org/10.1016/j.caeo.2022.100079

Van Gils (2005). Potential applications of digital storytelling in education, *In the proceedings of 3rd Twente Student Conference on IT*, Enschede June.

Van, L. K., Dang, T. A., Pham, D. B. T, Vo, T. T. N., Pham, V. P. H. (2021). The effectiveness of using technology in learning English. AsiaCall Online Journal, 12(2), 24-40. Retrieved from https://asiacall.info/acoj/index.php/journal/article/view/26

Vice, T. A., Pittman, R. T., & Warnick, E. M. (2023). Blocked or unlocked: Recognizing the benefits and challenges of digital literacy storytelling projects. *Journal of Education*, 203(2). https://doi.org/10.1177/00220574231162590.

Wan G., et al.(2008). Creating constructivist Learning environment for Japanese EFL Students: A digital story program. *The Asian EFL Journal Quarterly*, 10 (2), pp. 31-50.

Wawro L. (2012). Digital storytelling: More than the sum of its parts, Children & Libraries: *The Journal for the Association for Library Service to Children*, 10, 1, pp. 50-52.

Wilden S. (2017). *Mobile Learning*. Oxford: Oxford University Press.

Windy Astuti, M., & Chakim, N. (2023). The Use of Digital Storytelling to Improve Students' Speaking Ability in Secondary EFL Classroom. *JELITA*, 4(2), 190-202.https://doi.org/10.56185/jelita.v4i2.347

Yang, Y. T. C., Chen, Y. C., & Hung, H. T. (2020). Digital Storytelling as an Interdisciplinary Project to Improve Students' English Speaking and Creative Thinking. *Computer Assisted Language Learning*,2020,123.https://doi.org/10.1080/09588221.2020.1750431

Yang, H., & Wu, X. (2021). The impact of digital storytelling on language learning. *Journal of Educational Technology & Society*, 24(2), 27–39.

YouTube (2022). https://www.youtube.com/results?search_query=digital+story

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