



**T.R.
PAMUKKALE UNIVERSITY
THE INSTITUTE OF EDUCATIONAL SCIENCES
DEPARTMENT OF FOREIGN LANGUAGE EDUCATION
ENGLISH LANGUAGE TEACHING PROGRAM
MASTER OF ARTS THESIS**



**THE EFFECTIVENESS OF STUDENT-CENTERED DIGITAL
STORYTELLING ON PROMOTING VOCABULARY
KNOWLEDGE AND WRITING SKILLS OF SECONDARY
SCHOOL STUDENTS**

LEYLA ÇELİK KIZILKAYA

Denizli-2023

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Supervisor

Prof. Dr. Recep Şahin ARSLAN

JÜRİ ÜYELERİ ONAY SAYFASI

Bu çalışma, Yabancı Diller Eğitimi Anabilim Dalı, İngiliz Dili Eğitimi Bilim Dalı'nda jürimiz tarafından Yüksek Lisans Tezi olarak kabul edilmiştir.

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Pamukkale Üniversitesi Eğitim Bilimleri Enstitüsü Yönetim Kurulu'nun/...../..... tarihi ve/..... sayılı kararı ile onaylanmıştır.

Prof. Dr. Mustafa BULUŞ

Enstitü Müdürü

ETİK BEYANNAMESİ

Pamukkale Üniversitesi Eğitim Bilimleri Enstitüsü yazım kurallarına göre hazırladığım bu tez araştırmamda; tezde yer alan tüm bilgi ve belgeleri akademik kurallar çerçevesinde elde ettiğimi; görsel, işitsel ve yazılı tüm bilgi ve belgeleri sunuyorum. Başka araştırmacıların çalışmasından yararlandığım yerde bilimsel normlara uygun olarak ilgili çalışmaya atıfta bulunduğumu; Bahsettiğim tüm çalışmalarını kaynak olarak gösterdiğimi; Kullanılan verilerde herhangi bir tahrifat yapmadığımı; Çalışmamın herhangi bir bölümünü bu üniversitede veya başka bir üniversitede başka bir tez olarak sunmadığımı beyan ederim.

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ÖZET

Öğrenci Merkezli Dijital Hikaye Anlatımının Ortaokul Öğrencilerinin Kelime Bilgisi ve Yazma Becerisi Üzerindeki Etkisi

ÇELİK-KIZILKAYA, LEYLA

Yüksek Lisans Tezi, Yabancı Diller Eğitimi Anabilim Dalı,

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Teknolojiyi sınıflara dahil etmek günümüzde bir gereksinim olarak görülmektedir. Dijital Hikaye Anlatımı ise teknolojiyi İngilizce dil sınıflarına dahil etmenin en yaygın yollarından biridir. Bu nedenle, bu çalışma Dijital Hikaye Anlatımı'nın ortaokul öğrencilerinin kelime bilgisi ve yazma becerileri üzerindeki etkililiğini incelemeyi amaçlamıştır. Araştırma katılımcılarını, Ağrı ilinde bir devlet okulunda öğrenim gören 60 kişiden oluşan 7. sınıf öğrencileri oluşturmuştur. Katılımcıların 30'u kontrol grubunda, 30'u ise deney grubunda yer almıştır. Çalışma grupları rastgele belirlenmiş olup ön test-son test kontrol gruplu bir desen içermektedir. Sonuçlar, öğrencilerin yazma becerilerinde istatistiksel olarak anlamlı bir farklılık ortaya koymuştur; kontrol grubu ön test puan ortalaması ($M = 51,800$), son testleri ise ($M = 54,000$)'dür; deney grubu için ön test puanlarının ortalaması ($M = 50,600$) ve son testlerin ortalaması ($M = 77,400$)'dür. T-testi anlamlılığı ($p < ,05$), deney grubundaki öğrencilerin istatistiksel bir fark göstererek yazma becerilerini geliştirdiğini doğrulamıştır. Ek olarak, bulgular hem deney hem de kontrol grubundaki öğrencilerin kelime dağarcığı bilgisinde önemli bir artışa açıklık getirmiştir; ancak, deney grubunda istatistiksel olarak anlamlı bir fark oluşmadığı görülmüştür. Sonuç olarak, çalışmanın sonuçları Dijital Hikaye Anlatımı'nın ortaokul öğrencilerinin yazma becerilerini geliştirmede etkili olduğunu göstermektedir.

Anahtar Kelimeler: Dijital Hikaye Anlatımı, Yabancı Dil Olarak İngilizce, Kelime Dağarcığı Bilgisi, Yazma Becerileri, Genç Öğrenciler.

ABSTRACT

The Effectiveness of Student-Centered Digital Storytelling on Promoting Vocabulary Knowledge and Writing Skills of Secondary School Students

ÇELİK-KIZILKAYA, LEYLA

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Integrating technology in classrooms is seen as a necessity today. Digital Storytelling is one of the popular ways of including technology in English language classes. Therefore, the present study aimed to investigate the effectiveness of Digital Storytelling on secondary school students' vocabulary knowledge and writing skills. The current study included 60 7th graders in a state school in Ağrı, Türkiye. 30 of the participants attended the control group and 30 of them participated in the treatment group. The study contained a random sampling design. Using pretest-posttest control group design, the research was conducted. The results revealed a statistically significant difference in students' writing skills of the experimental group; the mean score of the pre-test for the control group was ($M = 51.800$) and the mean score of the post-tests was ($M = 54.000$); the mean score of the pre-tests for the treatment group was ($M = 50.600$) and the mean score of the post-tests was ($M = 77.400$). T-test significance ($p < .05$) confirmed that the students in the experimental group improved their writing skills in showing a statistical difference. Additionally, the findings clarified a considerable increase in students' vocabulary knowledge; however, not a statistically significant difference occurred in the treatment group. As a conclusion, the findings of the research demonstrated that DST is effective on promoting secondary school students' writing skills.

Key Words: Digital Storytelling, English as a Foreign Language, Vocabulary Knowledge, Writing Skills, Young Learners.

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LIST OF ABBREVIATIONS

CEFR	The Common European Framework of Reference for Languages: Learning, Teaching, Assessment
CDS	Centre of Digital Storytelling
DST	Digital Storytelling
EDS	Educational Digital Storytelling
EFL	English as a Foreign Language
ELT	English Language Teaching
L2	Second Language
MoNE	Ministry of National Education
RQ1	Research Question 1
RQ2	Research Question 2
TOEFL Junior	Test of English as a Foreign Language Junior

CHAPTER I: INTRODUCTION

1.1. Background to the Study

Foreign language learners, especially young learners, may easily get bored and lose their motivation while writing and learning new vocabulary. However, as Wilkins (1972) said that no conversational signals can be delivered without the availability of vocabulary knowledge. Vocabulary knowledge and writing skills might be considered as being among the most important steps in learning a language. The lexis, according to Lewis (1993), "is the core or heart of language" (p. 89). Yet, it can be difficult to acquire new words and retain them in the long run. The set of lexical objects is open and is constantly expanding, as Ur (2012) described. There are variety of ways that people can increase their vocabulary in English. Communication and information technologies provide numerous new learning opportunities as learning settings change constantly (Niemi & Multisilta, 2015). Digital storytelling (DST), one of these prominent teaching methods in English language teaching (ELT), is extremely valuable for helping students internalize the idea that vocabulary knowledge and writing skill are the foundation of language learning.

Digital storytelling, in contrast to conventional storytelling, is based on context and incorporates media, audio, music, and narrative. According to the goals of a course objectives, both teachers and students can write stories. Some researchers (Nassim, 2018; Sadik, 2018; Smeda, Dakich, & Sharda, 2014; Syafryadin, 2019) explored the impact of DST products by students with comparisons to the traditional method of teaching vocabulary and writing in a foreign language, while others (Çetin, 2020; Dogan & Robin, 2008; Tiba, Condy, Chigona, & Tunjera, 2015; Wang & Zhan, 2010; Yüksel-Arslan, Yildirim, & Robin, 2016) investigated the effectiveness of DST created by teachers. However, there isn't enough data to compare the usefulness of teacher-centered DST to student-centered DST in terms of advancing vocabulary knowledge and writing skills.

1.2. Statement of the Problem

Technology integration and the usage of interactive media, including digital music, video films, digital comic books, photographs, and gifs are provided by DST. When compared to traditional storytelling, DST participants can participate in the narrative rather than just being treated as passive listeners (Dorner, 2002). Particularly in English language classes, young learners might participate in class activities before and after viewing these DST tools. Meaningful stories

can trigger young learners' latent learning pathways with the use of DST short films. The right materials show themes that are interesting, pertinent, and relevant to students (Richard-Amato, 1988). This is consistent with earlier study results (Alkan & Arslan, 2014; Arıkan, 2017; Aybek, 2016; Demir & Duruhan, 2015; Erkan, 2015; Kandemir, 2016;) that show the course materials were judged insufficient to achieve the objectives. DST provides both visual and auditory components. Differently from the audio tracks in the coursebooks of the Turkish Ministry of National Education, with the help of DST tools, young learners have the chance to connect chunks and phrases that they hear to actions they see on the smart board screen. Therefore, this may lead them to enhance permanent vocabulary knowledge and writing skills related to the curriculum objectives. To indicate this gap, this study aims to supply relevant materials with using student-centered DST and explore their effectiveness on young learners' vocabulary knowledge and writing skills in terms of curricular purposes of the Turkish Ministry of Education.

1.3. Purpose of the Study

In English classes digital storytelling tools can be used as instructional materials by integrating target vocabulary into video films. It may also help them create contextual meanings while letting students see actions of speakers. DST materials let creating one's own story and recording his/her voice adding some pictures and music in it. Therefore, this quasi-experimental research aims to discover the results of DST tools on vocabulary knowledge and writing skill of young learners. With the help of the results of the present study, we might reach conclusions to compare the effects of student-centered DST teacher-centered DST on promoting vocabulary knowledge and writing skills of young learners in an EFL classroom.

1.4. Research Questions

This present study aims to answer these research questions:

1. Is student-centered DST effective to promote secondary school students' vocabulary knowledge?

Null Hypothesis: There is no statistically significant difference between the pre-test and posttest.

Alternative Hypothesis: There is a statistically significant difference between the pre- and posttest.

2. Is student-centered DST effective on promoting writing skills of secondary school students?

Null Hypothesis: There is no statistically significant difference between the pre-test and posttest.

Alternative Hypothesis: There is a statistically significant difference between the pre-test and posttest.

5. Significance of the Study

Because of the lack of studies investigating the effect of student-centered DST on promoting vocabulary knowledge and writing skills of secondary school students, this study may serve useful results by developing effective course materials and investigating their effects on students' success in foreign language. Due to the dearth of research conducted in this area, findings of this research may show important outcomes to have answers about the effectiveness of DST materials in EFL classrooms.

1.6. Limitations of the Study

The research was conducted with 7th graders in Hüseyin Celal Yardımcı Kurtuluş Secondary School in Doğubayazıt, Ağrı, Türkiye. As the conditions may change in any schools, cities, and countries, the results of this research may not be generalized. There were 60 participants, thus, the results may not reach a generalized outcome. The core interest of this study was to examine the effectiveness of DST on improving the vocabulary knowledge and writing skills; therefore, listening, speaking, and reading skills, grammar, and pronunciation were not included in the study. Further studies can be conducted on these language components specifically.

CHAPTER II: REVIEW OF LITERATURE

2.1. Introduction

One of the most significant changes in our lives brought about by the growth of technology has been the use of technical tools and their purposes (İnce, 2014). Due to this advancement of technology, both education and the teaching of foreign languages have gained improvements (Bajramia & Ismailia, 2016). One of the signs of the increased interest in integrating technology is the idea of CALL (Computer Assisted Language Learning), which is the subject of extensive study and implementation (Martins, 2014). There is also a rapidly expanding attention in the necessity of using technology in language learning at a young age. Different instructional resources and chances to expand children's horizons are provided by technology (Larsen-Freeman & Anderson, 2011). We can infer that young learners expect their teachers to employ visuals and technology in the classroom. (Ekin & Damar,2013).

Allen (1983) stated “lexical problems frequently interfere with communication; communication breaks down when people do not use the right words” (p. 5). Additionally, Tench (2003) pinpointed that “writing is one of the foundations of a successful public relations practitioner and the ability to communicate messages clearly and concisely is one of their differentiating skills” (p. 139). Digital Storytelling is one of the ways that is also a popular application offering audio-visual and contextual learning materials, therefore the current study aimed to compare the impact of DST tools created by the *teacher* of the class and the *students*. In order to be able to create suitable materials, we need to be aware of characteristics, needs, and interests of young learners addressing the elements and different types of DST. Therefore, after recognizing these features, we may serve good materials and give our students chances to create their own learning materials to foster vocabulary knowledge and writing skills.

2.2.The Importance of Vocabulary Learning and Writing Skills

Learning a new language basically requires developing one's vocabulary. Vocabulary has a significant influence in foreign language learning, as Huyen and Nga (2003) pointed out; "the four skills of speaking, listening, reading, and writing are all connected by this factor" (p. 2). The first step in the journey of language learning procedure starts with learning vocabulary so that we

can convey our thoughts and feelings both verbally and written. Vocabulary knowledge and the language skills of listening, speaking, reading, and writing have been found to be significantly correlated by many researchers (Al-Khasawneh, 2019; Karakoç & Köse, 2017; Vafae & Suzuki, 2020; Yang, Wing-Yin, Weisha, & Wei-Yang, 2020). Unfortunately, EFL students find it difficult to acquire vocabulary knowledge (Abdulrahman & Jullian, 2020). Classroom supplies should be entertaining and engaging in order to keep students interested throughout the course, taking into consideration the characteristics of young learners (Juhana, 2014). Young students enjoy making their work enjoyable (Halliwell, 1992). Due to their curiosity, young learners enjoy learning new things, so using audiovisual resources like video films is crucial for teaching (Brown, 2001). Digital storytelling is one method for helping students learn vocabulary in context by providing them with related terms in both visual and audial contexts. Young learners mostly comprehend information through seeing and hearing according to Harmer (2001); therefore, classroom resources should meet these demands without forming any obstructions for young learners' learning procedures. Additionally, young students have relatively short attention spans and are quickly distracted (Slattery & Willis, 2001), thus they mostly need visual and auditory learning materials and activities in order to keep them engaged and focused. Young learners learn best when learning is presented as a comprehensive, relevant, entertaining, and functional method (Brown, 2001). As English instructors, we could be able to keep students' sustaining focus for a longer time by developing relevant and attractive resources.

Furthermore, Pinter (2006) emphasizes that young students have a strong desire to experiment with new things and learn about everything, from the concrete to the abstract. After providing some examples, we should let students build their own learning materials in the classroom. By allowing students to develop their own stories using images and audio recordings, DST technologies may now be useful for enhancing vocabulary knowledge in young learners and involving them in the lesson. Young students may use their experiences to actively create meaning. They gain knowledge through practical applications by the manipulation of surrounding items (Juhana, 2014) that young students love to talk about themselves, so it is important to assess the efficacy of DST tools made by students. For example, a topic about family, friends, objects in the house, objects in the playground, food, fruit, etc., can be suitable topics for young learners that they can practice on. Additionally, in his study, Kellogg (2007) placed a strong emphasis on the value of writing abilities. He claimed that developing writing abilities is essential for both academic and

future professional success. The author implied that by providing regular writing chances and helpful feedback, intentional practice might help students learn to exercise executive control.

To conclude, DST is seen to be effective on promoting vocabulary knowledge and writing skills in learning foreign languages. DST, which grew from the 1980s community arts movement, was first presented as students at Berkeley, California's Centre of Digital Storytelling (CDS) produced a narrated video (Lambert, 2013). Digital storytelling, as opposed to traditional storytelling, may capture young learners' attention more since it incorporates media, such as video films, music, audio files, and animated gifs. Educational Digital Storytelling (EDS) is frequently promoted as an intense, and a technologically improved learning strategy. Its educational advantages are frequently stated as being media and technology literacy. According to Robin (2008), for instance, EDS helps students improve digital abilities, technological, informational, and visual literacy for the 21st century. In a similar vein, Ohler (2008) proposed that EDS united spoken, written, digital, and artistic literacies. Barrett (2006) described EDS in the context of the classroom and proposed that EDS provides the convergence of learner-centered learning strategies such as integration of technology, participation of students, reflection on deep learning, and project-based learning. Thus, EDS is said to conceptually fit well with education.

2.3. The Elements and Types of Digital Storytelling

Combining seven components forms the basis of the paradigm that Robin (2008, p. 223) developed for producing successful digital stories:

Table 2.1. *Seven Elements of Digital Storytelling*

1. Point of view	What is the story's major point, and what is the author's point of view?
2. A dramatic question	A significant question that captures the interest of the audience and is resolved at the conclusion of the narrative.
3. Emotional content	Serious themes that are brought to life in a unique and effective way and let the viewer connect with the story.
4. The gift of your voice	Adding a personal touch could assist the audience understand the story's setting.
5. The power of the soundtrack	Sounds that enhance and complement the narrative, such as music.

Table 2.1. *Seven Elements of Digital Storytelling(continued)*

6. Economy	Using just enough information to convey the message without overwhelming the audience.
7. Pacing	The pace at which the story moves forward—how slowly or swiftly.

One of the prominent scholars on DST, Robin (2008) divided digital stories into three groups; namely, 1) Personal narratives, which are recounts of key events in a person's life; 2) Historical Documentaries, which look at dramatic occurrences that provide light on the past; and 3) Narratives intended to enlighten or instruct the audience on a certain idea or method.

Making a personal narrative is a technique to produce digital stories, and it can be utilized successfully in language schools. Using the following example, Robin (2006) explains what personal narratives are. The short story ‘Almost Paradise’ tells the tale of a mother who immigrated to the United States with her kids from South Korea in pursuit of a more qualified life. It describes the challenges of moving to a new nation and the conflicts between a mother and daughter because they both have contrasting views of their life and their background. The advantages of using this kind of story in a classroom are numerous. The story teaches other children about people from different backgrounds than their own, and it helps them understand the kinds of struggles that their peers who have immigrant families go through.

Students may express their memories in personal narratives they create in language classes and incorporate audio and visual elements. As a result, this might encourage sharing. This kind of writing may be successful since young students enjoy discussing themselves and their experiences.

The other category of DST is historical stories, in which authors provide details about historical occurrences in their own or other nations. According to Robin (2006), one example of a historical digital story is an audio clip of the US President Abraham Lincoln's Gettysburg Address that incorporates old photos. However, this kind might be more effective for adolescent or adult learners. They could lose focus when writing the story because these historical events might not catch their attention.

DST as a teaching tool is the last type. We might employ personal narratives and instructional DST techniques more frequently with younger students. This type of DST is intended

to assist pupils with their content areas. For instance, with the aid of teaching DST tools, specific words in a course might be emphasized.

2.3. Teacher-Centered Digital Storytelling

There are several types of educational applications pertinent to digital storytelling. Choosing whether to have students produce the digital stories or the instructor do it is one of the first choices to be made when including this technology in the curriculum. In order to introduce new material to their pupils, some scholars have made the decision to write their own stories. A captivating, multimedia-rich digital storytelling can serve as a hook or buildup to spark their curiosity about exploring novel concepts. Researchers have discovered the value of DST tools developed by teachers in fostering particular language abilities in EFL students (Abdolmanafi-Rokni & Qarajeh, 2014; Hava, 2019; Razmi, Pourali, & Nozad, 2014).

Digital stories written by teachers might also be used to enhance crowded classes, to promote conversation, and in order to help students understand abstract or conceptual materials. Even though many teachers may still do not have a well-thought-out strategy for incorporating multimedia into their lessons, finding innovative ways to encourage students in language classes by incorporating visual, auditory, and visual components can be quite effective. Children enjoy listening to stories repeatedly, as Ellis and Brewster also (1991) underlined language skills can be learned thanks to continuous repetition.

2.5. Student-Centered Digital Storytelling

Digital storytelling might be a powerful option for learners that are guided to produce their own stories. Students can be given assignments that require them to research a topic before choosing a point of view in accordance with the ‘seven elements of digital storytelling’ after studying examples of digital stories and the stages of them. Before beginning the creative procedure, the teacher assists the learners by demonstrating a few sample applications that let them make video films on desktops, tablets, or mobile devices. The teacher's responsibilities include acting as the model, prompter, facilitator, and observer for process. For the children of the ‘digital generation’ in today's schools, this kind of activity can spark their curiosity, focus, and motivation.

As students are taught to use the Internet to explore rich and in-depth content while examining a variety of content, the process can make use of their creative talents as they start to conduct their own research and tell their own narratives. Moreover, students that attend to the writing process of digital tales can enhance their communication skills by understanding to adjust their thoughts, raise questions, state perspectives, and create writings. It can also enable learners the ability to write and present stories for people that listen to them. Young learners may practice alone or in pairs, depending on how they are approaching the skill. Digital storytelling addresses to students with a variety of learning styles, promotes teamwork, and enhances the learning environment in the classroom by encouraging a feeling of personal ownership and achievement.

Students' creations of digital storytelling tools lay a solid foundation for a variety of literacy abilities, including media literacy, technical literacy, visual literacy, and information literacy. The term "Twenty-first Century Literacy" was coined by Brown, Bryan, and Brown (2005, cited in Robin, 2006, p. 4) to summarize the work of numerous researchers in this field, who defined it as the unity of:

Digital Literacy – The capacity to interact with a constantly growing community in order to discuss problems, collect knowledge, and ask for assistance.

Global Literacy - The ability to comprehend messages from a global viewpoint and read, understand, respond, and contextualize them.

Technology Literacy - The capacity to enhance performance, productivity, and learning through the use of computers and other technologies.

Visual Literacy - The capacity to comprehend, create, and communicate with images.

Information Literacy - The capacity to locate, assess, and synthesize information is known as information literacy.

Research Skills: Preserving, locating and evaluating relevant data.

Writing Skills: Creating a script and building a point of view.

Organization Skills: Organizing the project's scope, the resources needed, and the time needed to finish the task.

Technology Skills: Understanding how to control a number of equipment, including multimedia creation software, cameras, scanners, and microphones.

Presentation Skills: Ability to present the stories to a group of people.

Interview Skills: Ability to interview and crafting interview questions.

Interpersonal Skills: Defining individual roles for group members while working within the group.

Problem-Solving Skills: Gaining decision-making and obstacle-overcoming skills across the entire project lifecycle.

Assessment Skills: Gaining proficiency in evaluating their own work and that of others.

Students are significantly more driven to write and more likely to produce their finest work when they write for a broader audience and share their video clips online (Cohen & Riel, 1989). In certain courses, students may share their DST tools with the group, expanding their audience beyond themselves and the teacher. Due to the manner of delivery, the replication of stories, and the uploading to the Internet, digital stories have the potential to reach a wider audience. Writing digital tales helps students transform into active producers instead of passive recipients (Niemi & Multisilta, 2016). Digital storytelling necessitates the creative blending of multiple literacies, involving "not only learned skills, like the ability to conceive and execute an effective narrative and use a computer, but also the more intuitive modes of collecting and arranging textual elements, the oral performance of personal stories, and the combination of sonic and visual elements" (Burgess 2006, p. 210). According to educators, in-depth learning happens when pupils work to translate material into coherent verbal and visual representations that are grounded in their own understanding (Mayer, 2003).

In order to evaluate the efficiency of DST tools' in EFL environments, researchers have performed studies (Abdolmanafi-Rokni & Qarajeh, 2014; Hava, 2019; Razmi, Pourali, & Nozad, 2014). The impact of DST on speaking skill in an EFL context was explicitly explored by Abdolmanafi-Rokni and Qarajeh (2014), and the study's findings indicated that DST tools increased students' speaking abilities. Similarly, DST has been shown to improve the speaking abilities of EFL learners by Razmi, Pourali, and Nozad (2014). Hava (2019) also conducted a study to examine how well DST approaches affected the motivation and satisfaction of EFL learners. However, there is not enough research to determine how two alternative DST strategies affect the development of vocabulary knowledge in EFL learners. The effectiveness of digital storytelling

tools as instructional aids solely created by teachers (teacher-centered) has been the focus of numerous research (e.g., Aljaraideh, 2019; Shelton, Archambault, & Hale, 2017), as well as the effectiveness of digital storytelling tools as instructional tools solely created by students (student-centered) (e.g. Hung, Hwang, & Huang., 2012; Liu, Huang, & Xu., 2018; Rohayati, 2020; Wahyuni, Sujoko, & Sarosa., 2017). However, the current study combines these two DST aspects to determine which method is more successful in fostering vocabulary development in young learners.

2.6. Studies on Storytelling

One of the earliest kinds of human communication is storytelling, and much has been written about how successful it is as an educational tool for the improvement of language abilities (Lucarevschi, 2016).

Huang (2006) looked into how contextualized storytelling as a teacher intervention affected young EFL readers' word recall and reading comprehension. In order to test the theory, 72 6th graders from a Taiwanese public elementary school were leveled and divided into three reading groups: story listening plus illustrated-text reading, visual-supplemented reading based on the Dual-Code Model, and text-only reading. The findings demonstrated that the treatment group succeeded better than the other groups when repeating stories, but the same impact was not observed while testing word recall. The possibility was raised that the teacher could have used contextualized storytelling to support EFL students' reading.

In their article, McDrury and Alterio (2010) discussed the benefits of using narratives to promote reflective learning and identified the elements that influence the procedure, including setting, audience size, and narrative style. They then gave examples of how storytellers might combine these traits to create eight different storytelling pathways, and discussed how these pathways affect the results. The findings demonstrated that the paths offered practitioners efficient means to positively participate in reflective discussion centered on practice. The researchers recognized the significance of the emotive domain, prompted discussion among listeners, and provided tools for the storyteller to take advantage of chances for reflective learning.

According to Atta-Alla (2012), utilizing storytelling to increase adult English language learners' language competency is beneficial. In the study, 40 adult English language learners gave their time voluntarily. Through a recommended integrated teaching model that focused on storytelling and was created by the writer, the students were provided with education and went through the language skills. Through the use of a pre-post exam and the application of the modified gain ratio of Blake, the efficacy of the integrated instructional approach was evaluated. The study's findings demonstrated that the participant's post-test results were greater than their pre-test results. The recommended strategy worked well in combining the four language skills and raising the participants' level of language proficiency.

According to Nguyen, Stanley, and Stanley (2014), using stories to teach and learning foreign languages can enhance students' language proficiency, understanding, and classroom involvement. In order to teach Chinese as a second or foreign language in China, the use of storytelling was examined in this survey study. Participants included 30 adult students who enrolled in the School of Chinese Language at Shaanxi Normal University and 15 instructors. Participants filled out a survey for teachers or students on their preferences, the technique, advantages, and difficulties of using storytelling in classes. The survey's results demonstrated that the participants' interest in storytelling was motivated by their perceptions of its advantages for language learning, comprehension, community building, and knowledge of different cultures.

In their study, Abasi and Soori (2014) aimed to investigate the impact of storytelling on kindergarten-aged children's English vocabulary knowledge. The research involved 20 Iranian kids who attended a private kindergarten in Iran. Pre- test post-test quasi experimental design was used for the investigation. Twenty vocabulary items from a narrative book were used in kindergarten. According to the statistical research, storytelling helped kindergarten students learn more vocabulary.

According to Lucarevschi (2016), who compiled an assessment of the relevant research, storytelling may even be more successful than conventional teaching tools like textbooks when it comes to teaching languages. The study also showed that the efficacy of a story depends on how enjoyable, interesting, and memorable it is. This increases students' interest in speaking, writing, and reading about stories as well as in listening to them (Atta-Alla, 2012; Kim, 2010; Wajnryb, 2003). The studies in the literature, however, typically do not go into great detail. One of the aims

of these studies is, for instance, to explore the impacts of storytelling and what abilities are aided by its use. Most of the studies do not really look into any possible negative effects of using storytelling for language acquisition. This gives us the idea that it's an educational tool that simply benefits L2 learning. This review of the literature aims to give a summary of the findings from empirical investigations into the influence of storytelling on the acquisition of L2 language abilities and also identify gaps in the body of knowledge by contrasting the effectiveness of storytelling with other teaching strategies that need to be filled by future research. Researchers and educators will have a better knowledge of the function of storytelling in language classrooms and, in conclusion, be able to promote their teaching techniques as a result of answering these questions.

Khodabandeh (2018) examined the effectiveness of storytelling on students' learning English as a foreign language (EFL) through the use of Telegram. Thirty English students, ages 18 to 21, participated in the study and received a low English proficiency rating after being interviewed by two instructors prior to the treatment. The chosen individuals were split into two equal groups at random: control (n = 15) and treatment (n = 15). In the online lesson, the lecturer shared four stories with both groups. Meanwhile, the control group responded to comprehension questions about the stories, while the treatment group was required to summarize what had been repeated. The participants were instructed to record their voices, share them with their groups, and then listen to the speaker while posting their remarks. Two instructors conducted interviews with each participant following the procedure. The comparison of the first and second interviews' outcomes demonstrated the benefits of narrative and question-answering on Telegram. The findings of this research may guide students in improving their English-speaking abilities.

Çubukçu (2014) explored the connections between vocabulary and total physical response storytelling (TPRS) as they would affect reading comprehension in a Turkish EFL context and also concentrated on teaching strategies that would encourage word-level knowledge. In the treatment, sixth-grade students between the ages of 11 and 12 studied three stories by Nasreddin Hodja were taught 20 vocabulary words through a lesson plan that was tailored for each story, as opposed to the control group, which learned these words solely through repetition, substitution, and personalization methods. 44 pupils from secondary schools participated in a study including pre- and post-testing. The findings supported TPRS's effectiveness in improving vocabulary teaching proficiency.

Table 2.2. *Studies on Storytelling*

The Studies on Storytelling	Huang (2006)	McDrury and Alterio (2010)	Çubukçu (2014)	Atta-Alla (2012)	Nguyen, Stanley, and Stanley (2014)	Lucarevschi (2016)
Aim	The effects of contextualized storytelling on reading comprehension and word recall.	How storytelling can be used for reflective learning purposes.	Interrelationships of vocabulary and total physical response storytelling as they impact reading comprehension.	Integrating the four language skills and improve the language proficiency of adult English language learners	Using storytelling as a teaching method in Chinese classes for adults.	Investigating the effects of storytelling on the acquisition of language skills in L2
Venue	Public primary school in Taiwan	-	A secondary school in Türkiye	-	A university in China	-
Participants	72 sixth grade students	-	44 secondary school students	40 adult English language learners	30 adult students enrolled in the School of Chinese Language	-
Data Collection Methods	Three modes of reading: Text-only reading, dual-code model, and story listening plus illustrated-text reading. Pre- and posttest design.	A descriptive study.	Through repetition, substitution and personalization techniques. Pre- and posttest design.	pre-post exam and the application.	A survey for teachers or students on their preferences,	Compiled a review of the literature.

2.7. Studies on Digital Storytelling

Verdugo and Belmonte (2007) investigated the impact of Digital Storytelling on speaking skill of six Spanish students. Quasi-experimental research was conducted to achieve this goal. The question of whether internet-based technologies may enhance listening comprehension in English as a Foreign Language was investigated using a pre-posttest design. The results showed that the experimental group fared better than the control group. The impacts of DST have been extensively researched throughout the world. For instance, Castaeda (2013) investigated students' perceptions

of the involvement of DST, the writer conducted the study using Spanish IV curriculum in a high school. The purpose of the research was to investigate whether language learners could successfully deliver information and express their emotions using digital storytelling. Open-ended pre- and post-surveys, pre-groups and post-groups, follow-up semi-structured interviews, reflection journals and observation were used to gather information for this case study. The results showed a change in epistemology that shapes students' viewpoints. The statistics showed that learners' attention shifts from language and technological components to a meaningful project as a whole, reflecting a change in their interpretation of the aim of the DST challenge. The results demonstrated that DST exercises in foreign language classes complied to the presentational style of communication, followed the writing process, and involved students in worthwhile, practical tasks.

Yoon (2013) investigated Korean learners' manners and perceptions regarding having education in English. The author employed the DST program in after-school English classes. The study consisted of 32 students who were 5th graders. They participated in the study for 12 weeks and were taught with DST in English classes. The scholar introduced and modified 'digital storytelling' as a main resource. This resource was created and enhanced by the author. Additionally, while assessing the influence and results of DST, a mixed research methodology was used to examine the opinions of the students. The self-evaluation reports and lecture review reports were included as well as quantitative sources such as pre- and post-surveys to investigate a difference. The results demonstrated that the possible advantages of DST had a favorable impact. The DST was effective on the attitude changes. The findings also showed that DST encouraged learners' enthusiasm and interest in the tale's subject matter while also giving them assurance that they could learn English. Moreover, Abdul-Ameer (2014) aimed to study the impact of digital stories on young Iraqi learners' vocabulary development. The participants were elementary level students. The treatment lasted for three weeks. The results showed that the experimental group fared better than the control group.

Sever (2014), additionally, aimed to investigate how Digital Storytelling affects students' motivation. The study consisted of 72 fifth graders from two different secondary school classrooms in Izmir, Türkiye. An experimental model was employed in this investigation. The study findings revealed a significant difference in favor of the experimental group that employed digital stories with regard to overall motives. In this situation, it can be argued that the student group that is

taught using digital tales was more motivated. Moreover, Sweeney-Burt (2014) conducted research on the application of Digital Storytelling as a tool for an effective technology integration for primary level students. The implementation was evaluated using a variety of qualitative techniques, such as interviews with the instructor, classroom observations, and focus group interviews with the participating kids. According to the findings, this methodical approach Digital Storytelling has the potential to be employed with a meaningful way as a technology integration strategy.

In Finland, Greece, and California, Niemi and Multisilta (2015) examined students' motivation and engagement when utilizing DST. As the major findings, DST had an impact on engaging students very well and it is advisable to mix an emotional component, such as enjoyment, with a dedication to hard work while attempting to increase engagement. Moreover, when creating learner-driven content, students acquire a number of twenty-first century abilities, and group projects are crucial for student engagement and motivation. The MoViE platform, which is a digital platform in this case, was a good tool.

Teachers created digital storytelling videos during a 7-week learning experience that Shelton, Archambault, and Hale (2017) ran. The participants were 31 preservice elementary teachers. The study took place in a teacher preparation program. The researchers also thought about how this strategy might work in their future classrooms. Analysis was done on the qualitative and quantitative data collected from the entry and exit surveys of preservice teachers as well as their finished digital stories. The findings demonstrated that all preservice teachers produced suitable films, indicated enhanced understanding for the pedagogical benefit of DST, and improved enthusiasm in utilizing the strategy despite technological and content constraints.

Digital storytelling (DST) was linked to improved academic performance in English language proficiency among sixth grade pupils in Jordan, according to Aljaraideh (2019). The study employed a quasi-experimental approach. The participants of the study were 50 male students chosen from a public school. The study's results revealed statistically significant differences in both the motivation of students to learn English and their academic success.

Aşık (2016) examined pre-service English teachers' self-reported comments on the usage of DST and related instruments. The researcher aimed to investigate its effectiveness on the

technological pedagogical content knowledge. The study was conducted in the context of Turkish EFL and examined pre-service English teachers' perceptions and reflections on using DST to teach English to young students. The participants of the study were 78 pre-service English teachers. Their reflection papers and a focus-group interview following the implementation of a digital storytelling project were used. The findings demonstrated that pre-service English instructors had favorable perceptions on the application of DST. The instruments employed for DST, the perspectives on young students, and the development of their technological pedagogical content knowledge are all essential implications from their thoughts.

The impact of DST on fourth-graders' listening skills was studied by Ciğerci and Gultekin (2017). The participants' mother tongue was Turkish and their ages were between 9–10. They applied the implementation at a primary school in Eskişehir, Türkiye. Through digital stories, Turkish lessons were taught. The implementation lasted for over 8 weeks. The activities were written based on the tales. The researcher monitored the process while the classroom instructor carried out the lesson plans. Additionally, a listening comprehension exam, researcher and participants' interviews, and research data were gathered. Quantitative data obtained from the listening skills test were examined using t-tests, while the qualitative information was subjected to descriptive analysis. The listening comprehension post-test results for the experimental and control groups showed a significant difference. The experimental group's listening comprehension skills improved as a result of classroom observations, digital stories, listening activities based on the stories, and the development of a more engaging and motivating classroom environment, according to the qualitative data from student and teacher interviews.

Moreover, in their study, Kaya and Tekiner-Tolu (2017) aimed to experience the effectiveness of DST on Turkish Anatolian High School students in the southeast part of Türkiye. The research included 97 students. The authors presented that the use of digital storytelling increased student motivation. The participants improved their language and computer abilities. The study demonstrated how the digital storytelling approach is easily adaptable to the Turkish environment. The study's findings were used to inform educational recommendations for teachers, teacher educators, and researchers.

Canlı-Bekar (2019) examined the effectiveness of DST on young students' motivation while learning vocabulary. Using the Intrinsic Motivation Inventory and the Vocabulary

Knowledge Scale, the quantitative data was collected. The findings of the study demonstrated that young learners' motivation and achievement are correlated, which positively impacts their vocabulary knowledge.

Hava (2019) investigated how digital storytelling affected EFL students' motivation and satisfaction levels. Additionally, the study checked what students think about the integration of DST into classroom settings. Within a 9-week implementation period, a group of pre-service teachers (n = 60) produced three digital stories on nations, nature, and sports. Data collecting instruments included the motivation scale and a satisfaction survey. The students' motivation, self-confidence, personal usage, and attitude domains were evaluated at the start and the conclusion of the implementation phase. The outcomes demonstrated that after engaging in a digital storytelling exercise, students' self-confidence and personal usage improved significantly. While the changes in attitude were not statistically significant, the paired-samples t-test indicated minor impact sizes for self-confidence and personal usage. Additionally, it was discovered that using digital storytelling in EFL instruction may help students improve their vocabulary, writing, and speaking abilities. All in all, the results indicated that DST may be an effective and useful tool that may be used in educational settings to assist students' language and digital skills development.

Avcı (2021) examined the effectiveness of DST on young learners' listening skills. The qualitative and quantitative data were gathered from the participants as part of the study's quasi-experimental design. After the pre-test, the software DigiFlyers was used to the treatment group. The treatment lasted for eight weeks in order to see how it affected the young English language learners' listening skills. The study's findings showed that the experimental group members' listening skills increased.

Table 2.3. *Studies on Digital Storytelling*

The Studies on Storytelling	Shelton, Archambault, and Hale (2017)	Aljaraideh, (2019)	Çiğerci and Gultekin (2017)	Castañeda (2013)	Yoon (2013)	Aşık (2016)
	Investigating preservice teachers' understanding	The motivation of students on	Effects of digital storytelling on fourth-grade	Ascertaining digital storytelling as a means of	Students' attitudes and perceptions regarding	Pre-service English teachers' self-reported

Table 2.3. *Studies on Digital Storytelling(continued)*

Aim	for the educational benefit of digital storytelling	using Digital Storytelling.	students' Turkish listening skills	information presentation and emotional expression for language learners	learning in English changed as a result of employing digital storytelling	comments on the usage of digital storytelling
Venue	-	Jordan	Türkiye	Spain	Korea	Türkiye
Participants	31 preservice elementary teachers	50 male students	fourth-grade kids'	High School Students	32 students	78 pre-service English teachers
Data Collection Methods	The qualitative and quantitative data	Pre-test and posttest.	A listening comprehension exam, teacher and student interviews, and research data.	Pre- and post-open-ended surveys, pre- and post-structured interviews, and observation and reflection journals	Pre- and post-survey, self-evaluation reports and lecture review reports	Focus-group interview following

2.8. Studies on Testing the Vocabulary Knowledge

The efficiency of introducing new vocabulary words directly into reading passages was examined by Sonbul and Schmitt in 2009. The study concentrated on vocabulary development that relies just on reading (incidental learning) with learning that benefits from direct word meaning communication (explicit learning). Three tests were used to evaluate the form recall, meaning recall, and meaning recognition levels of vocabulary knowledge. Additionally, the outcomes demonstrated that form recall, which represents the most in-depth degree of knowledge, is notably facilitated by direct teaching.

In another study, Hirschel and Fritz (2013) investigated the immediate and long-term efficacy of vocabulary acquisition strategies which included vocabulary journals, and a spaced repetition computer-assisted language learning (CALL) program. The participants of study were 140 first-year Japanese university students taking English as a second language. The results demonstrated that both the CALL and vocabulary notebook groups got statistically significant vocabulary score enhancements from the pre- to post-tests. The CALL group outperformed the

control group somewhat in terms of longer-term returns. Regarding pedagogical soundness and potential applicability, both methods were used and examined. The researchers advised instructors to think carefully before selecting a specific CALL application and warned against the use of vocabulary notebooks.

In addition, the study conducted by Coyle and Gomez-Gracia (2014) examined the effectiveness of a teaching program through song-based activities on vocabulary knowledge. The participants were Spanish students who were five years old. Three 30-minute classes centered on the teaching and application of a well-known children's song were given to 25 preschoolers. Each kid received vocabulary picture tests before and after the instruction sessions. Additionally, a post-test five weeks later was applied. The results of this tiny study provided some proof that singing new words to youngsters while teaching them might help them promote their receptive vocabulary knowledge. The majority of the kids did not, however, gain adequate information through exposure to the music input.

The study, performed by Mediha and Enisa (2014), involved 40 ninth-grade students at a private institution. A control group and a treatment group of individuals were allocated. The application process ran for four weeks, and both groups took nine hours of English each week. The subjects took pre-tests before the study to gauge their vocabulary knowledge, then they took the same exam again for the post-test and retention test to measure how much they had improved. Both the control and treatment groups' actions resulted in the collection of data. The control group received standard instruction while the experimental group learnt vocabulary using literary materials. The outcomes were statistically examined. The findings showed that including literature into the courses improved the vocabulary knowledge of the students.

Another study was conducted by Zhang and Pei (2022) in order to investigate function of word knowledge dimensions and specifically, to examine the word-meaning inference in this study, tertiary-level L2 learners (N = 121) took a number of word knowledge tests, involving ones that measured vocabulary size, word associations, morpheme form and meaning knowledge, morpheme discrimination, and morpheme identification. The participants were also given two parts of lexical inference tasks that were pseudo word inference and real-word inference. The results showed that, once text comprehension ability was taken into account, word-knowledge characteristics collectively contributed to L2 lexical inference by multivariate path analysis. More importantly,

the study discovered that, out of all the word-knowledge components, word associations and morpheme-form knowledge had the best predictive power. The discussion of vocabulary knowledge and lexical inference was supported by theoretical arguments. Additionally, practical consequences were presented in order to clarify L2 vocabulary teaching and learning.

Receptive and controlled productive vocabulary learning were studied by Zhong and Hirsh (2022). The academic word lists were the main emphasis of the study. Data were gathered from 41 Chinese high school students. In the third week of the first semester, the participants took the pre-test. After a ten-week process, they took the post-test. The results showed that after ten weeks of study, their receptive and controlled productive vocabulary knowledge increased considerably at specific vocabulary levels, and controlled productive vocabulary knowledge increased more generally than receptive vocabulary knowledge. Moreover, at all vocabulary levels, receptive vocabulary size was bigger than controlled productive vocabulary size. After ten weeks of teaching, the difference between receptive and controlled productive vocabulary size decreased. In light of the results, the study considered how classroom concentration and vocabulary development were related.

In a private Turkish primary school, Çetin and Flamand (2012) performed their study to demonstrate how pupils may genuinely improve their L2 vocabulary knowledge using posters. The study included 31 Turkish pupils from a private elementary school—17 girls and 14 boys. The results of this research presented that we can help many kids learn a second language by simply hanging posters with visuals and L2 vocabulary on classroom walls.

Table 2.4. *Studies on Testing Vocabulary Knowledge*

The Studies on testing Vocabulary Knowledge	Sonbul and Schmitt (2009)	Hirschel and Fritz (2013)	Coyle and Gomez-Gracia (2014)	Mediha and Enisa (2014)	Zhang and Pei (2022)
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Table 2.4. *Studies on Testing Vocabulary Knowledge(continued)*

Aim	Investigating the vocabulary development that relies on incidental learning	Examining the immediate and long-term efficacy of vocabulary acquisition strategies: Vocabulary journals; and a spaced repetition computer-assisted language learning	The effects of a teaching sequence of song-based activities on the L2 vocabulary acquisition	Investigating the effectiveness of including literature into the courses improved the vocabulary knowledge of the students.	The function of word knowledge dimensions in second language (L2) word-meaning inference
Venue	-	Japan	Spain	-	-
Participants	-	140 first-year Japanese university students	25 five-year-old Spanish EFL learners	40 ninth-grade students at a private institution	121 tertiary-level L2 learners
Data Collection Methods	Pre-test and Post-test	Pre-test and Post-test	Pre-test and post-test	Pre-test, post-test and retention test	Pre-test and Post-test

2.9. Studies on Testing the Writing Skills

Johnstone, Ashbaugh, and Warfield (2002) investigated the impact of general and task-specific writing experiences using DST with an aim to examine its effectiveness on writing-skill. The participants were tertiary level students. The researchers used a cognitive process theory of writing skill development and theories of expertise development and showed that after arranging for repeated practice, there would become greater writing skills. After adjusting for repeated practice, they also expected that repeated practice would be linked to higher writing skills. Undergraduates attended a field experiment in which 279 students practiced writing. That practice was relevant to their career. Additionally, the other group of 385 students practiced writing in a more general task domain. The findings matched the expectations.

An experimental investigation was undertaken by Saputro (2013) on the effectiveness of DST to enhance learners' writing skill with eighth graders as the study's intended audience. The study findings demonstrated that the treatment group's mean was greater than that of the control group. A different study utilizing DST was carried out by Castillo-Cuesta, Quinonez-Beltran, Cabrera-Solano, Ochoa-Cueva, and Gonzalez-Torres (2021) on future English language instructors. They expected to observe how DST improved writing abilities. Pretest, Pre-Questionnaire, Post-Questionnaire, and Post-Test were the instruments used. The major results

indicated that learners' writing abilities significantly improved, notably in areas involving grammar and vocabulary. Moreover, the participants felt that utilizing Storybird for digital storytelling was a good way to help them improve their EFL writing skills because they were more involved in projects that allowed them to show their learning.

The goal of Zakaria and Abdul Aziz's (2019) study in Malaysia was to examine how DST affected narrative writing skills. Secondary school pupils were used in the research. The results revealed that learners made the most gains in terms of content, grammar, vocabulary, and overall performance. In this quasi-experimental investigation, 52 students participated. Pre- and post-test findings as well as information from a semi-structured interview were gathered. Participants claimed that DST encourages and enhances their writing.

The goal of Patekar (2021) was to investigate the procedures and difficulties associated with scoring the writing of young EFL students in Croatia. In the first phase of the research, 97 English language instructors who worked with students in grades 1 through 4 of primary school completed an online survey. The kids were between the ages of 7 and 10. In the second section, the writing assignments were examined that the students' teachers had given them. The findings indicated that teachers frequently failed to assign suitable writing tasks for summative evaluation. They required more assistance in developing language tests. Moreover, the researchers stated that Croatian universities must do more to better prepare incoming teachers for instructing and evaluating young English language students.

A cloud-based technology application was studied by Li and Mak (2022), who facilitated student cooperation on reading-to-write learning activities. The treatment lasted for 10 weeks. The intervention centered on methodically assisting children in progressively developing their unique expository writing talents with embedded reading techniques. The study involved 69 first-year learners taking an English course at a significant college in Canada. In order to compare the performance of the control and treatment groups, the results of pre- and post-writing assessments and standardized reading tests assessing three reading qualities were evaluated. The experimental group's writing results, which had lower language competence levels, showed a statistically significant outcome, showing that the collaborative learning environment aided by technology had a favorable impact. This research showed that tertiary level students with little language

proficiency might gain from a structured online intervention that fosters a collaborative learning environment for academic writing.

Sarica and Usluel (2016) carried out research in the Turkish setting with the aim of determining the impact of DST on students' visual memory capacity and writing abilities. The research included fifty-nine elementary school children in total. They used random sampling and, formed pretest-posttest control groups. The results revealed a considerable increase in students' writing abilities and visual memory capacity in both the treatment and control groups, with the average gain scores being greater in the latter. Furthermore, the research revealed that digital storytelling significantly improved students' writing abilities. However, despite the fact that the average gain scores of the participants in the treatment group were greater in terms of visual memory capacity, no statistically significant difference was found between the groups.

Similar to this, Yamaç and Ulusoy (2016) performed research on how DST affected elementary school kids' writing abilities. The learners' writing skills were assessed both before and after the use of DST in the classroom. Moreover, the process of narrative writing using DST was deeply examined. This was done via observations, interviews, audio and video records, student diaries, and student products. The research revealed that the use of DST promoted participants' writing in the sense of concepts, planning, word choice, sentence fluency, and conventions. They regarded the aspects of digital tales and the students' technological literacy and competency throughout the process. The findings presented a consistent enhancement in the quality of the students' digital stories. Additionally, digital storytelling altered the narrative writing process and became an effective tool for closing the digital split by fostering learners' vocabulary knowledge perceptions, competencies, and skills.

Table 2.5. *Studies on Writing Skill*

The Studies on DST & Writing Skill	Johnstone, Ashbaugh, and Warfield (2002)	Saputro (2013)	Zakaria and Abdul Aziz (2019)	Patekar (2021)	Li and Mak (2022)	Sarica and Usluel (2016)
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Table 2.5. *Studies on Writing Skill(continued)*

Aim	Investigating the effectiveness of both experiences with general and task-specific writing on the improvement of writing skills	The effectiveness of Digital storytelling to improve students' mastery in writing narrative	Examining how DST has affected narrative writing skills	Investigating the procedures and difficulties associated with scoring the writing of young EFL students	Investigating the effectiveness of a cloud-based technology application	The impact of digital storytelling on students' visual memory capacity and writing abilities
Venue	-	-	Malaysia	Croatia	Canada	Turkey
Participants	Tertiary level students	Eighth graders	Secondary school pupils	Students aged between seven and ten	69 tertiary-level students	59 elementary school children
Data Collection Methods	Pre-test and Post-test	Pre-test and Post-test	Pre-test, Post-test, and a semi-structured interview	Online survey	Pre-test, post-test, and a standardized reading test	Pretest-posttest

2.10. Studies on Testing Young Learners

Schoonen and Verhallen (2008) focused on younger first- and second-language learners in primary school in the Netherlands on assessing young learners' vocabulary knowledge. For this younger target group, a word association test format was modified, and an empirical evaluation of the viability of testing deep word knowledge in primary school students was conducted. The outcomes demonstrated that the exam offered a valid and effective way to evaluate the students' vocabulary proficiency.

Young language learners' processing and perception of a computer-mediated, timed speaking exam were studied by Lee and Winke (2017). Twenty non-native English speakers were aged 8, 9, and 10. Additionally, eight native English speakers of the same age performed computerized sample TOEFL® Primary™ speaking test problems. Eye movements were used to examine the participants' attentional focuses on various test elements, such as prompts, drawings, and a countdown timer. Additionally, the kids gave qualitative information which

included interviews; drawings and pictures on their test-taking experiences. The results showed that the eye-movement patterns of the groups were different. Compared to their NS counterparts, NNSs tended to dwell on and glance at the countdown timer more.

Liu and Brantmeier (2019) investigated the association between self-assessment and objective measures by conducting the study on the skills writing and reading. The participants of the study were 106 young Chinese English language learners, whose ages were between 12 to 14. In the study, various tasks, such as, a reading test, multiple choice questions, etc. were applied. A substantial link between reading comprehension and self-assessment reading scores was found using correlational studies. Writing production and self-assessment writing scores were shown to be significantly correlated. Findings suggested that young students often appropriately judge their reading and writing proficiency.

Shintani (2011) also checked the impacts of input-based and production-based training. The participants were 36 Japanese young students, ages between 6-8 and enrolled in six concurrent classes at a Japanese private English school. The study was conducted on the vocabulary development and used a pre-test-post-test quasi-experimental design. Three different forms of therapy were given to the three groups: The control group completed a series of three exercises consisting of alphabet practice, TPR exercises, and English songs without being exposed to any target words. The input-based group was taught using input-based methodology. Production-based instruction was given to the group. The findings indicated that students in the IB group had more discourse control than those in the PB group. In the IB group, participants only created target words that were begun by the learners, whereas in the PB group, participants mostly produced words that were launched by the instructor.

Gao, Wang, and Lee (2020) examined the impacts of three storytelling methodologies on the vocabulary acquisition and response patterns of third-graders and created a nine-week primary study and a three-week pilot trial. A pretest-posttest methodology with a delayed test was employed for both trials. In order to simplify the classification of in-class reaction patterns, video recordings were also made. Results showed that the best result came from narrative alone, while long-term vocabulary growth through word concentration or follow-up exercises waned.

Ratajczak (2021) investigated the effects of working memory, grade level, and reading task on reading skills. In Hungary, 94 young English language learners whose grades were 6 and 7 finished the reading section of the TOEFL® Junior™ as well as a battery of working memory tests. The mixed-effects model predicted that students in Grade 7 would have much greater comprehension accuracy than students in Grade 6 would due to their increased working memory ability. Differences in comprehension accuracy were not significantly correlated with reading task differences.

Table 2.6. *Studies on Testing Young Learners*

The Studies on Testing Young Learners	Schoonen and Verhallen (2008)	Shintani (2011)	Lee and Winke (2017)	Liu and Brantmeier (2019)	Gao, Wang, and Lee (2020)
Aim	Assessing young learners' vocabulary knowledge	The impacts of input-based and production-based training on young EFL learners' vocabulary development.	Young language learners' processing and perception of a computer-mediated, timed speaking exam	Investigating the association between self-assessment and objective measures of reading and writing	The impacts of three storytelling methodologies on the vocabulary acquisition and response patterns
Venue	Netherlands	Japan	-	China	-
Participants	Primary school students	36 Japanese kids between the ages of six and eight	Twenty non-native English speakers aged eight, nine, and ten.	106 Chinese language learners (aged between 14-16)	Third graders.
Data Collection Methods	Pre-test and Post-test	Pre-test and Post-test	Qualitative information which was interviews; drawings and pictures on their test-taking experiences.	Pre-test and Post-test	Pre-test and Post-test

CHAPTER III: METHODOLOGY

This section describes the study's participants, venue, and research design in addition to the tools used for gathering data and how data were gathered and analyzed.

3.1. Research Design

The pre/posttest quasi-experimental research method was used to compare the outcomes of the control and treatment groups in the current study. According to Abraham and MacDonald (2011), due to the fact that an independent variable is manipulated, quasi-experimental research is found to be similar to experimental research. However, it is not the same with experimental research since there is either no control group, no random selection, or no instant influence.

Young learners 'vocabulary knowledge' and 'writing skill' are the dependent variables whereas the Digital Storytelling method is the independent variable of the study. The eight-week implementation period of the intervention involved using digital storytelling tools with students as a teaching tool. The vocabulary knowledge of the pupils was evaluated using the Wesche and Paribakht's (1996) Vocabulary Knowledge Scale. In order to evaluate writing skills, Analytical Assessment for Written Work developed by Arslan (2014) was used.

Table 3.1. *Summary of the Research Design, Participants, and Procedures*

Research Design	<ul style="list-style-type: none"> • Quasi-experimental design
Sampling	<ul style="list-style-type: none"> • Convenience sampling
Participants	<ul style="list-style-type: none"> • 30 Participants for the experimental group • 30 Participants for the control group
Data Collection Tools	<ul style="list-style-type: none"> • Vocabulary Knowledge Scale for testing the knowledge with a pre-test post-test design • Analytic Assessment Scale (AAS) for written work
Data Analysis Tools	<ul style="list-style-type: none"> • SPSS for the analysis of VKS and AAS
Treatment Practice	<ul style="list-style-type: none"> • DST video films created by the students for 8 weeks, and 4 hours each week

3.2 Participants of the Study

The participants of the research were 7th graders at Hüseyin Celal Yardımcı Kurtuluş Secondary School students, in Doğubayazıt, Ağrı, Türkiye. They were all A1 level students and according to Council of Europe (2001), they could;

recognize familiar words/signs and phrases and identify the topics in headline news summaries and many of the products in advertisements, by exploiting visual information and general knowledge; deduce the meaning of an unknown word/sign for a concrete action or object, provided the surrounding text is very simple, and on a familiar everyday subject; guess the probable meaning of an unknown word/sign that is similar to one in the language they normally use; use a very short prepared text to deliver a rehearsed statement (e.g. to formally introduce someone, to propose a toast); give information about matters of personal relevance (e.g. likes and dislikes, family, pets) using simple words/signs and basic expressions; produce simple isolated phrases and sentences; produce simple phrases and sentences about themselves and imaginary people, where they live and what they do; describe in very simple language what a room looks like; use simple words/signs and phrases to describe certain everyday objects (e.g. the colour of a car, whether it is big or small). (Council of Europe, 2001, pp. 53-67).

3.3 Data Collection

3.3.1. Vocabulary Knowledge Scale (VKS)

This VKS was created by Wesche and Paribakht (1996) in order to assess students' vocabulary comprehension and recognition. The categories of the words on the scale were intended to represent the early phases or levels of vocabulary knowledge (Wesche & Paribakht, 1996). The impact of DST on pupils' vocabulary knowledge was evaluated using the Vocabulary Knowledge Scale (VKS).

The Vocabulary Knowledge Scale (Wesche & Paribakht, 1996)

I: I don't remember having seen this word before

II: I have seen this word before but I don't know what it means

III: I have seen this word before and I think it means _____ (synonym or translation)

IV: I know this word. It means _____ (synonym or translation)
V: I can use this word in a sentence. e.g.: _____ (if you do this section, please also do section IV)

Figure 1. The vocabulary knowledge scale

In order to acquire more reliable findings from the responses of 4th grade A1 level pupils, Kutuk (2007) designed the Turkish version of this scale and lowered the five-likert scale to three alternatives.

I lost my 'eraser' at the writing course.

a) Bu kelimeyi daha önce hiç görmedim.
b) Bu kelimeyi daha önce gördüm ama anlamını bilmiyorum.
c) Bu kelimeyi daha önce gördüm ve anlamını biliyorum.

Bu kelimeyi anlatan doğru resmi seçin:




a)  b)  c) 

Figure 2. Turkish version of VKS

The scale was used to measure student improvement both before and after each unit. The options received the following scores: a-1, b-2, and c-3. In order to determine the impact of the procedures employed in both the controlled and treatment groups, the connection between the perceived meaning of the word and the appropriate response was examined. The VKS needed manual scoring and was not ideal for testing a large number of pupils in its current form, according to Wesche and Paribakht (1996).

Iqbal and Komal (2017) investigated the usefulness of VKS on promoting vocabulary knowledge for investigating the impacts of this scale. The goal of the research was to raise

awareness of the need of extensive reading for language learning while putting a particular emphasis on vocabulary. Interviews and the VKS were applied to obtain the data. Based on analysis and interpretation, it was concluded that the VKS was useful in assessing students' word knowledge and revealed growth in their vocabulary.

Paribakht and Wesche (1993) assessed the VKS's dependability through testing and retesting a word set. There were 93 participants at 6 distinct levels. At the beginning of the program, the participants were handed the VKS sheet, which had thirty vocabulary terms. They had to check the box next to the choice they believed to be the best. For each word, there were five alternatives. This measurement let the researcher ascertain the participants' vocabulary knowledge before the training started. When the program was finished, the VKS was applied once again to determine the learner's total word knowledge. Attendees had to mark the boxes next to the vocabulary terms that were afterwards measured or tallied in accordance with the scale. Finally, the results of these two scores were compared to determine how much the individuals' vocabulary knowledge had increased. The participants were participated in the program for twelve weeks, and evaluated readers often used the same terms. Following reading, participants were given many tasks that aided in long-term memory retention. High correlations (above.90) were found between students' self-reported vocabulary knowledge and their actual score in Paribakht and Wesche's (1996) study and examination of the VKS. Rosszell (2007) discovered that each administration of the modified VKS had usually good internal reliability coefficients.

Iqbal and Komel (2017) further showed that two tests were given to research participants in order to assess their vocabulary growth. In this study, it was determined whether vocabulary acquisition, by using a reading strategy, improved learners' vocabulary by analyzing the data gathered from the attendees' results on the three exams. Inferential and descriptive statistics for three measures were employed to analyze the level of vocabulary knowledge., the Statistical Package for Social Science (SPSS) software was used to compare and evaluate the test findings in terms of comparing standard deviation and the mean using One Way Repeated Measures ANOVA.

3.3.2. Analytic Assessment Scale for Written Work

The students' writing skills were evaluated using the Analytic Assessment Scale for Written Work developed by Arslan (2014).

Table 3.2. *Analytic Assessment Scale for Written Work:*

Area	Criteria	Scoring
Content/Ideas	EXCELLENT TO VERY GOOD: Excellent to very good treatment of the subject or topic; topic narrow enough; considerable variety of ideas; independent and thorough interpretation of the topic; content relevant to the topic; <u>accurate details; original ideas; clear purpose for writing.</u>	30-24
	GOOD TO AVERAGE: Adequate treatment of topic; some variety of ideas or argument; some independence of interpretation of the topic; most content relevant to the topic; reasonably accurate detail.	23-18
	FAIR TO POOR: Treatment of the topic is hardly adequate; little variety of ideas; some irrelevant content; lacking detail.	17-10
	VERY POOR: Inadequate treatment of the topic; very broad topic; no purpose for writing; no variety of ideas or argument; content irrelevant; almost no useful detail	9-6
	INADEQUATE: Fails to address the task with any effectiveness. NOT ENOUGH FOR ASSESSMENT	5-0
Organization	EXCELLENT TO VERY GOOD: Fluent expression, ideas clearly stated and supported; appropriately organized paragraph(s) or sections; effective introduction, strong support and effective conclusion; logically sequenced (coherence); <u>connectives appropriately used (cohesion).</u>	20-17
	GOOD TO AVERAGE: Uneven expression, but main ideas stand out; paragraphing or section organization evident; logically sequenced (coherence); some connectives used (cohesion).	16-12
	FAIR TO POOR: Very uneven expression, ideas difficult to follow; organization does not help reader; logical sequence difficult to follow (coherence); connectives largely absent (cohesion).	11-8
	VERY POOR: Lacks fluent expression; ideas very difficult to follow; little sense of organization; ineffective introduction, weak support and poor conclusion; no sense of logical sequence (coherence); connectives not used (cohesion).	7-5
	INADEQUATE: Fails to address this aspect of the task with any effectiveness. NOT ENOUGH FOR ASSESSMENT	4-0
Vocabulary/Word Choice	EXCELLENT TO VERY GOOD: Wide range of vocabulary; accurate word/idiom choice and usage; appropriate selection to <u>match register.</u>	20-17
	GOOD TO AVERAGE: Adequate range of vocabulary; occasional mistakes in word/idiom choice and usage; register not always appropriate.	16-12
	FAIR TO POOR: Limited range of vocabulary; a noticeable number of mistakes word/idiom choice and usage; register not always appropriate	11-8
	VERY POOR: No range of vocabulary; uncomfortably frequent word/idiom choice and usage; no apparent sense of register.	7-5
	INADEQUATE: Fails to address this aspect of the task with any effectiveness. NOT ENOUGH FOR ASSESSMENT	4-0
Language Use	EXCELLENT TO VERY GOOD: Confident handling of appropriate structures, sentences well-built and structures strong and varied; hardly any errors of agreement, tense,	20-17

Table 3.2. *Analytic Assessment Scale for Written Work(continued)*

	number, word order, articles, pronouns, prepositions; meaning never obscured.	
	GOOD TO AVERAGE: Acceptable grammar- but problems with more complex structures; mostly appropriate structures; some errors on agreement, tense, number, word order, articles.	16-12
	FAIR TO POOR: Insufficient range of structures with control only shown in simple constructions; frequent errors on agreement, tense, number, word order, articles, pronouns, prepositions; meaning sometimes obscured.	11-8
	VERY POOR: Major problems with structures- even simple ones; sentences and structures poor, incomplete or awkward; frequent errors of negation, agreement, tense, number, word order/function, articles, pronouns, prepositions; meaning often obscured.	7-5
	INADEQUATE: Fails to address this aspect of the task with any effectiveness. NOT ENOUGH FOR ASSESSMENT	4-0
Mechanics/Conventions	EXCELLENT TO VERY GOOD: Demonstrates full command of writing conventions such as spelling, punctuation, capitalization, and layout.	10-8
	GOOD TO AVERAGE: Occasional errors in spelling, punctuation, capitalization, and layout.	7-5
	FAIR TO POOR: Frequent errors in spelling, punctuation, capitalization, and layout	4-2
	VERY POOR: Very poor mastery of conventions; full of errors of spelling, punctuation, and capitalization; layout is distracting. Fails to address this aspect of the task with any effectiveness. NOT ENOUGH FOR ASSESSMENT	1-0

Arslan (2014, pp. 133-134)

3.4. Data Collection Procedure

The 7th grade students were offered four hours of English courses weekly. The 9th unit was chosen when applying DST technique for the research. The list of the themes and the targeted vocabulary were highlighted in the curriculum of the Ministry of National Education (2018).

The participants in the control group were 30 students and again the treatment group consisted of 30 students. For the control group, DST materials were designed by the teacher and used as a teaching tool whereas for the treatment group, DST materials were created by the students during the learning procedure as a learning tool. They were contextualized within stories and images, and gifs and songs were integrated to the video film. The teacher showed sample DST products highlighting each step. With the help of these two methods, we were able to compare the effects of DST materials as a teaching tool and a learning tool on students' vocabulary knowledge. In addition, for the assessment of the writing skills, the control group had the DST video materials narrated down by the teacher. The control group saw the steps of narrating down stories and at the

end of this lecture, they wrote down a story using the targeted vocabulary. However, the treatment group was the active side of the procedure. After the teacher showed some sample DST video materials, they were continuously narrating down stories and creating DST video materials.

In order to see the effectiveness of Digital Storytelling on the writing skills, in the treatment group, the author created sample Digital Storytelling materials. The researcher created the parts ‘exposition, rising action, climax, falling action, and resolution’ of the story step by step in the class. After the researcher showed samples, students, firstly, wrote draft stories on papers as groups. The students in the treatment group wrote short stories using the certain vocabulary. The researcher gave them feedback and the students edited their products repeatedly. After completing the stories, they turned them into digital stories. They tried to choose the best media and audio for the story. They added their voice with the writing of the story. Hence, they made their story more meaningful and concrete for themselves and other people. As the researcher wanted to compare the effectiveness of the teacher and the student-centered DST classrooms, she used DST materials as a learning tool in the control group. The researcher wrote stories partially using DST: Exposition, rising action, climax, falling action, and resolution. They wrote the stories using the certain vocabulary that was same with the treatment group. The researcher added her voice, media, and music to complete the DST. Therefore, the researcher had a chance to compare the effects of a student- and a teacher-centered DST classroom on the writing skills. The software *AniMaker* was used for creating digital stories throughout the study.

Table 3.3 *Study Procedure of the Treatment Group*

Weeks	Implementation (Vocabulary Knowledge)	Implementation (Writing Skill)
1 st	Pre-test for the Vocabulary Knowledge. (1 hour) Presenting the student-centered digital storytelling idea for learning new vocabulary and creating stories. (40’)	Pre-test for the Writing Skill. (1 hour) Presenting the student-centered digital storytelling idea for writing digitalized stories and the parts of a story: Exposition, rising action, climax, falling action, and resolution. (40’)
2 nd	Covering the seven elements of DST for learning new vocabulary (Point of View, A dramatic Question, Emotional Content, The gift of your Voice, The Power of the Sound, Economy, and the Pacing) (40’+40’)	Covering the seven elements of DST for writing digitalized stories (Point of View, A dramatic Question, Emotional Content, The gift of your Voice, The Power of the Sound, Economy, and the Pacing.) (40’+40’)
3 rd	Creating a DST video altogether for the aim of learning new vocabulary. (Targeted vocabulary: Amusement Park, Art Gallery, City Hall,	Creating a DST video altogether for the aim of writing digitalized stories. (Theme: What Do You Know About Public Buildings?) (40’+40’)

Table 3.3 *Study Procedure of the Treatment Group(continued)*

	Department Store, Governorship, and Movie Theater.) (40'+40')	
4 th	Students' practices on the elements of the DST: Point of View, A dramatic Question, Emotional Content, The gift of your Voice, The Power of the Sound, Economy, and the Pacing. (40')	Students' practices on the elements of the DST: Point of View, A dramatic Question, Emotional Content, The gift of your Voice, The Power of the Sound, Economy, and the Pacing. (40') And the parts of a story: Exposition, rising action, climax, falling action, and resolution. (40')
5 th	Students' DST products as groups for the aim of learning new vocabulary. (Targeted vocabulary: City, Map, Town, Buy, and, Arrive.) (40')	Students' DST products as groups for the aim of writing digitalized stories. (Theme: What is it likely to move somewhere new?) (40') Teacher's feedback and editing (40')
6 th	Teacher's feedback and editing (40') Students' DST products as groups for the aim of learning new vocabulary. (Targeted vocabulary: Bakery, Chemist, Coffee Shop, and Fire Station.) (40')	Students' DST products as groups for the aim of writing digitalized stories. (Theme: The public buildings in my neighborhood.) (40') Teacher's feedback and editing (40')
7 th	Teacher's feedback and editing (40') Students' DST products as groups for the aim of learning new vocabulary. (Targeted vocabulary: Balance, climate, eco-friendly, efficient, global warming.) (40'+40')	Students' DST products as groups for the aim of writing digitalized stories. (Theme: How can we save the environment?) (40'+40')
8 th	Post-test for the Vocabulary Knowledge. (40')	Post-test for the Writing Skill. (40')

Table 3.4 *Study Procedure of the Control Group*

Week	Implementation (Vocabulary Knowledge)	Implementation (Writing Skill)
1 st	Pre-test for the Vocabulary Knowledge. (40') Presenting the teacher-centered digital storytelling idea for learning new vocabulary and creating stories. (40')	Pre-test for the Writing Skill. (40') Presenting the teacher-centered digital storytelling idea for writing digitalized stories. And the parts of a story: Exposition, rising action, climax, falling action, and resolution. (40')
2 nd	The teacher-researcher's DST video for the aim of learning new vocabulary. (Targeted vocabulary: Amusement Park, Art Gallery, City Hall, Department Store, Governorship, and Movie Theater.) The Activity: Listen and answer to the questions according to the story on a paper. (40'+40')	The teacher-researcher's DST video for the aim of writing digitalized stories. (Theme: What Do You Know About Public Buildings?) The Activity: Listen and complete the rest of the story according to your own imagination. Write down on a paper. (40'+40')

Table 3.4 *Study Procedure of the Control Group(continued)*

3 rd	The teacher-researcher's DST video for the aim of learning new vocabulary. (Targeted vocabulary: Balance, climate, eco-friendly, efficient, global warming.) The Activities: Listen and label. Listen and answer to the questions according to the story on a paper. (40'+40')	The teacher-researcher's DST for the aim of writing digitalized stories. (Theme: How can we save the environment?) The Activity: Listen to the story and complete the rest of it according to your own imagination. Write down on a paper. (40'+40')
4 th	The teacher-researcher's DST video for the aim of learning new vocabulary. (Targeted vocabulary: Bakery, Chemist, Coffee Shop, and Fire Station.) The Activity: Listen and answer to the questions according to the story on a paper. (40'+40')	The teacher-researcher's DST for the aim of writing digitalized stories. (Theme: The public buildings in my neighborhood.) The Activity: Listen to the whole story then change the end of it according to your own imagination. (40'+40')
5 th	The teacher-researcher's DST video for the aim of learning new vocabulary. (Targeted vocabulary: Hospital, Zoo, Barber, Pool, and Restaurant.) The Activities: Listen and label. Listen and answer to the questions according to the story on a paper. (40'+40')	The teacher-researcher's DST for the aim of writing digitalized stories. (Theme: Would you like to be a founder of a business?) The Activity: Listen to the whole story then change the end of it according to your own imagination. (40'+40')
6 th	The teacher-researcher's DST video for the aim of learning new vocabulary. (Targeted vocabulary: Game Store, Music Store, Grocery, Police Station, and Shopping Mall.) The Activity: Listen and answer to the questions according to the story on a paper. (40'+40')	The teacher-researcher's DST for the aim of writing digitalized stories. (Theme: What if these public buildings would not exist?) (40'+40') The Activity: Listen to the story and complete the rest of it according to your own imagination. Write down on a paper.
7 th	The teacher-researcher's DST video for the aim of learning new vocabulary. (Targeted vocabulary: City, Map, Town, Buy, and, Arrive.) The Activity: Listen and answer to the questions according to the story on a paper. (40'+40')	The teacher-researcher's DST for the aim of writing digitalized stories. (Theme: What is it likely to move somewhere new?) The Activity: Listen to the whole story then change the end of it according to your own imagination. (40'+40')
8 th	Post-test for the Vocabulary Knowledge. (40')	Post-test for the Writing Skill. (40')

3.5. Data Analysis

The analysis of the VKS was checked with the Statistical Package for the Social Sciences version 22. First, the normality was checked with the Shapiro-Wilk test as we had two different groups of 30 participants. The skewness and kurtosis values, normal Q-Q plots, histograms, and box-plots were analyzed. As there were two different sample groups, independent samples t-test

was used. According to the p value, the results of the study were reached as presented in the results section in detail.

The analysis of the writing scores was done using SPSS 22 as well. Scores were computed using the Analytic Assessment Scale for Written Work (Arslan, 2014). This scale that served as a thorough technique for writing evaluation was designed to assess student writing across many data sources. The scale was a detailed evaluation method with a number of criteria specified, including content/ideas, structure, vocabulary/word choice, language use, and mechanics/conventions. Each was weighted differently, for example, the content/ideas were calculated out of 30 points, the organization out of 20, the vocabulary/word choice out of 20, the language use out of 20, and the mechanics score out of 10. In total, it had 100 points.

Three English language teachers constituted the total number of raters for the inter-rater reliability; the measurement of inter-rater reliability offered a mechanism to express how much agreement there was between two or more independent coders (Hallgren, 2012). Fleiss kappa was employed to provide the inter-rater reliability co-efficiency.

CHAPTER IV: RESULTS

4.1. Research Question 1, “Is DST Technique Effective on Promoting Secondary School Students’ Vocabulary Knowledge?”:

In order to examine the effectiveness of DST on promoting EFL learners’ vocabulary knowledge, SPSS 22 was used to analyze the quantitative data. The quantitative data were the pre- and posttest achievement scores of the EFL learners. As having a normal distribution is one of the assumptions before applying paired samples t-tests, the normality was checked first. Because of the sample size ($N = 30$) for the control group and ($N = 30$) for the experimental group, fewer than 50 participants in each group, Shapiro-Wilk test was used. All variables were normally distributed according to the Shapiro-Wilk test ($p > .05$), histograms, normal Q-Q plots, and box-plots were normally distributed.

Table 4.1. *Test of Shapiro-Wilk*

Groups	Statistic	Shapiro-Wilk df	Sig.
Control Group	.936	30	.071
Treatment Group	.951	30	.181

Table 4.2. *The Q-Q Plot of the Treatment Group*

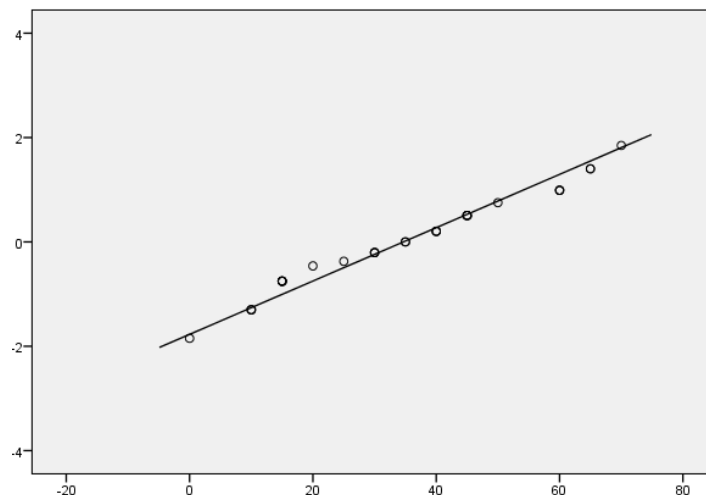
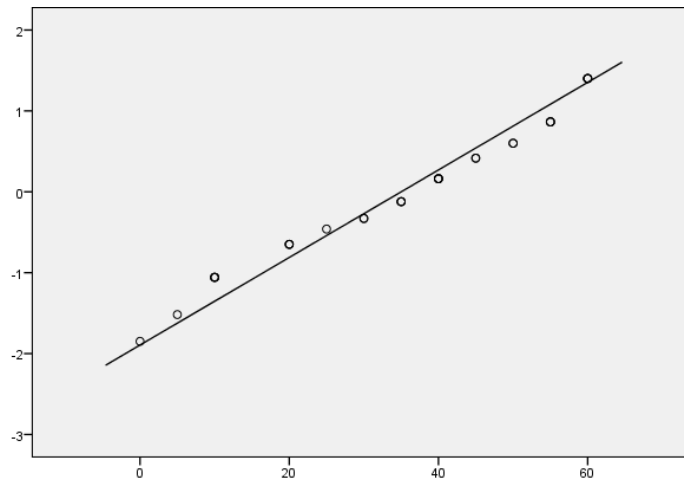


Table 4.3. *The Q-Q Plot of the Control Group*

With a skewness of $-.281$ ($SE = .427$) and kurtosis of -1.080 ($SE = .833$) for the pretest of the control group, and with a skewness of $.139$ ($SE = .427$) and kurtosis of -1.034 ($SE = .833$) for the pretest of the treatment group, all variables were normally distributed (Tabachnick & Fidell, 2013).

Table 4.4. *The Normality Check of the Vocabulary Knowledge Scores*

Groups		Statistics	Std. Error
Control Group	Mean	35.0000	3.37332
	Skewness	-.281	.427
	Kurtosis	-1.080	.833
Treatment Group	Mean	34.6667	3.57138
	Skewness	.139	.427
	Kurtosis	-1.034	.833

As they were normally distributed, the variables were continuous (ratio), and in order to compare two different groups' scores on two different tests, the parametric independent samples t-test was used. According to the findings of the independent samples t-test, there was a greater increase of the posttest scores of the experimental group than those of the control group.

Table 4.5. *The Group Statistics*

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Pre Tests	Control Group	30	35.0000	18.47645	3.37332
	Treatment Group	30	34.6667	19.56128	3.57138
Post Tests	Control Group	30	44.0000	20.65313	3.77073
	Treatment Group	30	49.6667	18.84297	3.44024

However, this difference was not statistically significant, ($p > .05$). Therefore, there was no statistical difference between the two groups.

Table 4.6. *Independent Samples T-Test Results*

	t	df	Sig. (2-tailed)
Post-test	-1.110	58	.272

4.2. Research Question 2, “Is DST effective on promoting writing skills of secondary school students?”:

The normality of the writing scores was checked with the Shapiro-Wilk test. All variables were normally distributed according to the Shapiro-Wilk test ($p > .05$), histograms, normal Q-Q plots, and box-plots were normally distributed.

Table 4.7. *Test of Shapiro-Wilk*

Groups	Statistic	Shapiro-Wilk df	Sig.
Control Group	.933	5	.618
Treatment Group	.936	5	.639

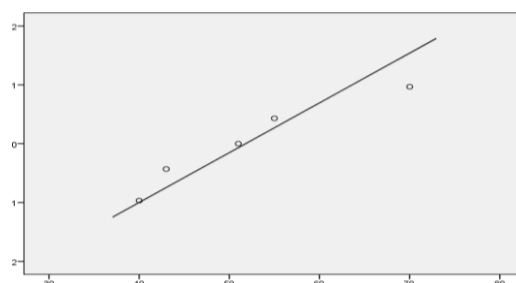
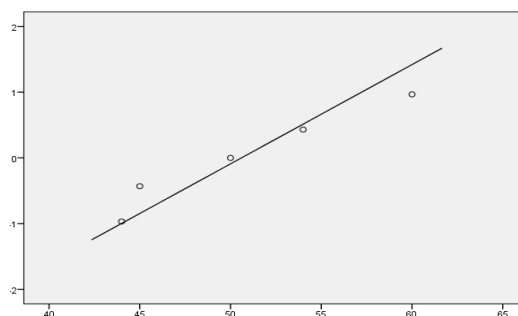
Table 4.8. *The Q-Q Plots of the Control Group*

Table 4.9. *The Q-Q Plot of the Treatment Group*Table 4.10. *The Normality Check of the Writing Scores*

Groups		Statistic	Std. Error
Control Group	Mean	51.8000	5.28583
	Skewness	.943	.913
	Kurtosis	.660	2.000
Treatment Group	Mean	50.6000	2.95973
	Skewness	.584	.913
	Kurtosis	-.949	2.000

Since the data were normally distributed, independent samples t-test was applied. According to the results, there was a statistically significant difference ($p < .05$) between the control and the treatment groups in terms of the improvement of the treatment group's writing score. Therefore, we can say that student-centered digital storytelling is effective on promoting writing skills of the second language learners.

Table 4.11. *Independent Samples T-Test Results*

	t	df	Sig. (2-tailed)
Post-test	-3.941	8	.004

Table 4.12. *Reliability Statistics*

Kappa	N of Items
.887	3

The inter-rater reliability was .887, which would indicate that 88% of the observed similarity in ratings between coders, and 12% was due to error variance or variations in coder ratings. According to Landis and Koch (1977) this result was accepted to be almost perfect.

The rubric contains subsections such as, content/ideas, organization, vocabulary/word choice, language use, and mechanics/conventions. According to the analyses;

Table 4.13. *Paired Samples T-Test Results for the Writing Skill*

	Treatment Group				Control Group			
	Mean Difference		Sig. (2-tailed)		Mean Difference		Sig. (2-tailed)	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
Content	16.200	24.200	.001	.000	15.800	18.200	.000	.003
Organization	9.400	15.800	.000	.001	8.800	8.600	.001	.001
Vocabulary	11.400	16.200	.000	.000	12.400	12.600	.000	.000
Language Use (Grammar)	8.600	14.200	.000	.000	9.000	8.800	.002	.003
Mechanics	7.000	7.000	.001	.000	5.800	5.800	.000	.000
Total Score	50.600	77.400	.000	.000	51.800	54.000	.000	.000

A statistically significant improvement in all aspects of writing skills for both groups, except for mechanics, was elicited.

CHAPTER V: DISCUSSION, CONCLUSION, SUGGESTIONS and LIMITATIONS

5.1. Discussion

In this chapter, the researcher discusses the findings of the study and infers some conclusions.

5.1.1 Research Question 1, “Is DST Technique Effective on Promoting 7th Grade Students’ Vocabulary Knowledge?”:

The research aimed to examine the impacts of DST on enhancing the 7th graders’ vocabulary knowledge. The study was carried with 7th grade state school students in Ağrı, Türkiye. There were 30 participants in each group. The data were gathered with the Vocabulary Knowledge Scale developed by Wesche and Paribakht (1996). The data were analyzed using SPSS 22 package; the parametric independent samples t-test.

The results of the current study presented that there was a greater increase of the treatment group’s vocabulary knowledge scoring than that of the control group. However, there was not a statistically significant difference between the groups. Hence, we may interpret that the student-centered DST technique was not significantly effective on fostering the 7th grade participants’ vocabulary knowledge in the study. However, most of the attendees enjoyed the digital storytelling program as they were able to improve their vocabulary knowledge. The reason behind that may be the participants found digital storytelling entertaining and amusing.

Thus, Digital Storytelling might offer positive contributions to the enhancement of vocabulary knowledge in English language contexts. Similar findings were made by Leong, Abidin, and Saibon (2019), who found that DST had a number of favorable benefits on vocabulary development. The same conclusions were reached by Özer (2016), who found that using digital storytelling to teach vocabulary could be a worthwhile and an effective approach. Furthermore, if it can be used in a variety of contexts, vocabulary instruction can be improved in a fun and technological way that is more suitable for today's learning environment. According to Tridinanti (2017), the acquisition of English vocabulary might be improved by using the digital narrative learning approach. Therefore, we may conclude that DST can be taken into account as a substitute to promote classroom English language acquisition. The goal of Maya and Al Halim (2021) was to

investigate how well digital storytelling might have helped help young learners learn language. The study's participants were 23 elementary school students in Indonesia. The research findings presented a considerable improvement in the mean pre- and post-test scores for young learners. The mean scores of the individuals in the current research likewise increased. In the research with 33 Turkish EFL learners, Tatlı, Saylan, and Kokoç (2022) investigated the effects of DST on vocabulary, speaking, and cognitive load. In terms of favorable assessments of the influence of DS for vocabulary usage, the findings from the qualitative data were consistent with those from the quantitative data, which supports the current study. Additionally, Setiyorini (2020) examined the impact of DST on students' intrinsic motivation to acquire language in her study. Closed-ended questions and interviews were utilized by the researcher to gather the data. Students were more intrinsically motivated to acquire vocabulary after utilizing digital storytelling. Interview findings indicate that because of the engaging media and engaging learning environment, digital storytelling might increase students' intrinsic desire for acquiring vocabulary.

We can conclude that, checking the results of the current study and the various studies above, that digital storytelling might be effective on promoting vocabulary knowledge in EFL contexts.

5.1.2. Research Question 2, “Is DST effective on promoting writing skills of 7th grade students?”:

According to the results of the present study, there was a statistically significant difference between the control and the treatment groups in terms of the improvement of the treatment group's writing score. Thus, we can infer that student-centered digital storytelling is effective on promoting writing skills of the 7th graders. In the study, there were five different constituents that were analyzed: Content, Organization, Vocabulary, Grammar, and Mechanics. Among these constituents in writing skill, students showed the most improvement on *content*. *Organization* and *language use* followed it with an equal score. Then vocabulary had its range and finally, we could not see any change for the *mechanics* on students' pre and post writing tests. Therefore, we can infer that digital storytelling was found to be effective on promoting writing skill; and students showed more improvement on writing a wide range of ideas, a unique and in-

depth interpretation of the topic, the discovery of content relevant to the subject, the delivery of reliable information, the presentation of creative ideas, and the presence of a distinct writing goal.

Similar to the results of this present study, Saputro (2013) found that students' writing skills significantly improved, especially in areas like grammar and vocabulary. Moreover, in their research, Sarica and Usluel (2016) showed that the use of DST significantly improved students' writing abilities. Yamaç and Ulusoy (2016) aimed to see how digital storytelling affected third grade pupils' ability to write. They did their research using observations, interviews, audio and video recordings, and student journals. The results demonstrated that using DST improved the quality of the learners' writing in terms of ideas, organization, word choice, sentence fluency, and conventions. The findings showed that students' technological literacy and proficiency improved steadily throughout the process, as did their understanding of the components of digital stories. Additionally, digital storytelling changed the narrative writing process and became an effective tool for addressing the digital gap by fostering students' new literacy perspective, proficiency, and abilities. By fostering better classroom relationships and increasing students' writing motivation, digital storytelling also fostered a sense of community inside the learning environment. Tanrikulu (2020), in a similar vein to the current study, looked into how students' impressions of their writing skills were impacted by the use of collaborative DST in writing lessons. The findings showed that students believe collaborative DST enhances their writing abilities. The opinions of the students were consistent with the fact that collaborative DST had a good impact on both the text's internal and outward structure. The script and multimedia component had a good impact on writing and support the integration of technology and writing. In addition to that, Lim and Noor (2019) did their research in Malaysia to examine how well digital storytelling promotes writing ability. The study results revealed that after four sessions of employing digital storytelling tools, student performance had improved.

To conclude, it is obvious that DST was proved to be effective on promoting writing skills of students in EFL contexts. As being evident in the current study, also, using digital storytelling as a new technological method in our classes can be very effective on improving students' writing skill.

5.2. Conclusion

The purpose of the present study was to examine the impact of a digital storytelling on promoting vocabulary knowledge and writing skill of 7th graders. The participants of the research were 60 seventh grade students at a public school in Ağrı, Türkiye: 30 of those in the treatment group and 30 of those in the control group. Enhancing the vocabulary knowledge and also the writing skill of Turkish EFL learners was considered important. Due to fact that technology is a fundamental piece of the 21st century, the current study aimed to make the DST the basis. In the study, CEFR A1 level descriptors were considered.

Quantitative tools were used to collect data from the participants of the study. Pre- and posttest scores of the vocabulary knowledge and writing skill tests were applied. The tests were applied on both the treatment and control groups. The treatment procedure was 8th weeks long. The process was explained in detail under the *data collection* section. The data were analyzed using SPSS with independent samples t-test and also paired samples t-test for analyzing the detailed data in writing tests.

The findings of the study presented that there was an improvement of the participants' vocabulary knowledge in the experimental group. However, the analysis showed that the scores were not enough to infer that there was a statistical difference between the treatment and the control groups on promoting their vocabulary knowledge. A possible reason for this finding might be attributed to the fact that the treatment lasted for 8 weeks and 4 hours each week; therefore, the participants could have felt bored. Another plausible reason can be that students did not want to study vocabulary with stories, continually.

However, we can interpret that Digital Storytelling is effective on improving secondary school students' writing skill. The reason behind this finding might be the fact that students found writing digitized stories enjoyable and interesting. Moreover, the *content* was the most improved constituent among the others in the writing rubric since the students tended to gather several of ideas, combine them and create a fluent story. As a conclusion, the findings showed that the DST is effective for young students of English in order to promote their writing skill.

5.3. Suggestions and Limitations

As described earlier, the aim of the present study was to examine the effectiveness of DST on promoting 7th graders' vocabulary knowledge and writing skill. In future studies, it might be possible to examine the effectiveness of DST on other skills: Listening, reading, and/or speaking skills. Further studies, also, can focus on other grades and/or on other levels such as, primary school students, high school students, etc. Additionally, further studies can investigate the impact of DST on different variables.

The current study was applied to 60 young students from seventh grades. Future research may include a larger number of participants. Moreover, the study was conducted in Ağrı, Türkiye. Hence, further studies may serve different results in different parts of Türkiye. Finally, the treatment was applied for 8 weeks; a longer period may serve stronger results. Finally, in today's world and educational environment, technology is an inseparable part of teaching and DST creates an enjoyable perspective for students. Therefore, researchers should conduct more studies in this popular area.

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APPENDICES


Appendix A.: The Official Permission from the Minister of National Education

AĞRI İL MİLLİ EĞİTİM MÜDÜRLÜĞÜ
ARAŞTIRMA UYGULAMA İZİN KOMİSYONU BAŞKANLIĞI

Müdürlüğümüze Araştırma Uygulama İzni için 264131 sayılı yazı/dilekçe ile başvuran Leyla ÇELİK adlı öğrencinin ekte belirtilen 2020/2 sayılı Milli Eğitim Bakanlığı Yenilik ve Eğitim Teknolojileri Genel Müdürlüğü Araştırma Uygulama İzinleri Genelgesi doğrultusunda Müdürlüğümüze gönderilen evraklar komisyonumuzca incelenmiş olup herhangi bir eksiklik ve aykırılık olmadığından araştırma uygulama izni verilmesi uygun görülmüştür. İşbu komisyonumuzca tutanak tutulup imzalanmıştır.


 Mesim ZARİÇ
 Öğretmen
 Üye


 Muhammed Faik TURAN
 Öğretmen
 Üye


 Mehmet Baki DURSUN
 Komisyon Başkanı
 (Şef)

Appendix B.: Research Ethics Committee Approval from the University

**T.C.
PAMUKKALE ÜNİVERSİTESİ
SOSYAL VE BEŞERİ BİLİMLER BİLİMSEL ARAŞTIRMA VE YAYIN ETİĞİ KURULU**

SAYI: 68282350/2022/G11

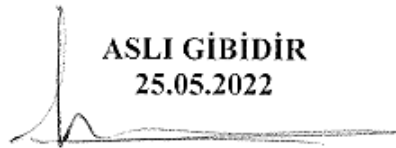
Toplantı Tarihi :25.05.2022

Toplantı Sayısı : 11

Toplantı Saati : 15:00

KARAR 17- Üniversitemiz Eğitim Bilimleri Enstitüsü Yabancı Diller Eğitimi Anabilim Dalı İngiliz Dili Eğitimi Tezli Yüksek Lisans Programı 192151034 numaralı öğrencisi Leyla Çelik' in Prof.Dr. Recep Şahin ARSLAN' ın danışmanlığında hazırlamakta olduğu *"The Effectiveness of Digital Storytelling (DST) to Promote Vocabulary Knowledge and Writing Skills: DST Tools Created by Teacher vs. Students"* başlıklı tez çalışmasına yönelik başvuru formu ile usul ve etik açıdan verdiği beyan ve ekler tetkik edilmiş olup; proje sahibinin, başvurusunda yer alan bilgi, belge ve taahhütnamelere uygun bilimsel davranışlar sergileyeceği kanaati oluşmuştur. İş bu karar oy birliği ile alınmıştır.

**ASLI GİBİDİR
25.05.2022**



**Prof. Dr. Ertuğrul İŞLER
Başkan**

Appendix C.: Parental Consent Form

Sizi Leyla ÇELİK tarafından yürütülen “The effectiveness of student-centered Digital Storytelling on promoting vocabulary knowledge and writing skills of secondary school students / Öğrenci merkezli Dijital Hikaye Anlatımının ortaokul öğrencilerinin kelime öğrenimi ve yazma becerileri üzerindeki etkisi” başlıklı **araştırmaya** davet ediyoruz. Bu araştırmaya katılıp katılmama kararını vermeden önce, araştırmanın neden ve nasıl yapılacağını bilmeniz gerekmektedir. Bu nedenle bu formun okunup anlaşılması büyük önem taşımaktadır. Eğer anlayamadığınız ve sizin için açık olmayan şeyler varsa, ya da daha fazla bilgi isterseniz bize sorunuz. Bu çalışmaya katılmak tamamen **gönüllülük** esasına dayanmaktadır. Çalışmaya **katılmama** veya katıldıktan sonra herhangi bir anda çalışmadan **çıkma** hakkına sahipsiniz. **Çalışmayı yanıtlamanız, araştırmaya katılım için onam verdiğiniz** biçiminde yorumlanacaktır. Size verilen **formlardaki** soruları yanıtlarken kimsenin baskısı veya telkini altında olmayın. Bu formlardan elde edilecek kişisel bilgiler tamamen gizli tutulacak ve yalnızca araştırma amacı ile kullanılacaktır.

Bu çalışmaya katılmak tamamen **gönüllülük** esasına dayanmaktadır. Çalışmaya **katılmama** veya katıldıktan sonra herhangi bir anda çalışmadan **çıkma** hakkına sahipsiniz. **Çalışmayı yanıtlamanız, araştırmaya katılım için onam verdiğiniz** biçiminde yorumlanacaktır. Size verilen **formlardaki** soruları yanıtlarken kimsenin baskısı veya telkini altında olmayın. Bu formlardan elde edilecek kişisel bilgiler tamamen gizli tutulacak ve yalnızca araştırma amacı ile kullanılacaktır.

1. Araştırmayla İlgili Bilgiler:

- a. Araştırmanın Amacı: Dijital hikaye anlatımının İngilizce kelime öğrenimi ve yazma becerileri üzerindeki etkiyi araştırmak.
- b. Araştırmanın İçeriği: 7. Sınıf öğrencilerinin üzerinde yarı deneysel yöntemle dijital hikaye anlatımının kelime öğrenimi ve yazma becerisi üzerindeki etkisini incelemek.
- c. Araştırmanın Nedeni: Özgün araştırma **Tez çalışması**
- d. Araştırmanın Öngörülen Süresi (*Araştırma takviminde öngörülen süredir*): Eylül-Kasım 2022
- e. Araştırmaya Katılması Beklenen Katılımcı/Gönüllü Sayısı: 60

- f. Araştırmanın Yapılacağı Yer: Hüseyin Celal Yardımcı Kurtuluş Ortaokulu Doğubayazıt/Ağrı.

2. Çalışmaya Katılım Onayı:

Yukarıda yer alan ve araştırmadan önce katılımcıya/gönüllüye verilmesi gereken bilgileri okudum ve katılmam istenen çalışmanın kapsamını ve amacını, gönüllü olarak üzerime düşen sorumlulukları tamamen anladım. **Çalışma hakkında yazılı ve sözlü açıklama aşağıda adı belirtilen araştırmacı tarafından yapıldı, soru sorma ve tartışma imkanı buldum ve tatmin edici yanıtlar aldım. Bana, çalışmanın muhtemel riskleri ve faydaları sözlü olarak da anlatıldı.** Bu çalışmayı istediğim zaman ve herhangi bir neden belirtmek zorunda kalmadan bırakabileceğimi ve bıraktığım takdirde herhangi bir olumsuzluk ile karşılaşmayacağımı anladım.

Bu koşullarda söz konusu araştırmaya kendi isteğimle, hiçbir baskı ve zorlama olmaksızın katılmayı kabul ediyorum.

Katılımcının

Adı-Soyadı:

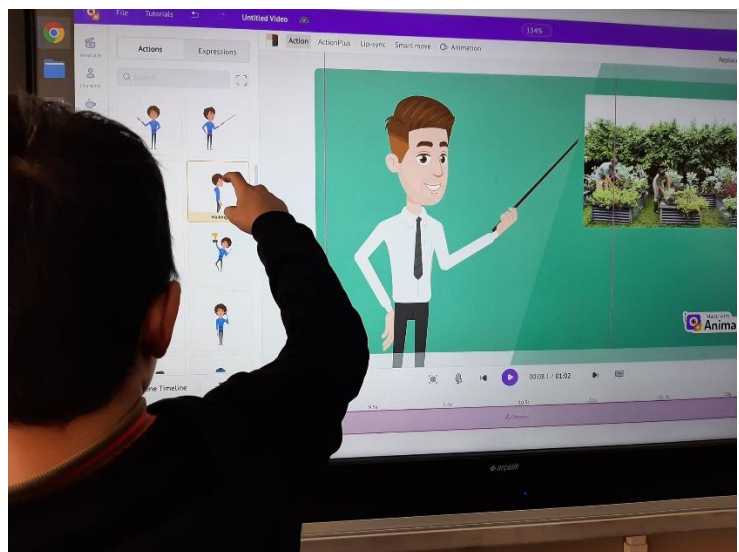
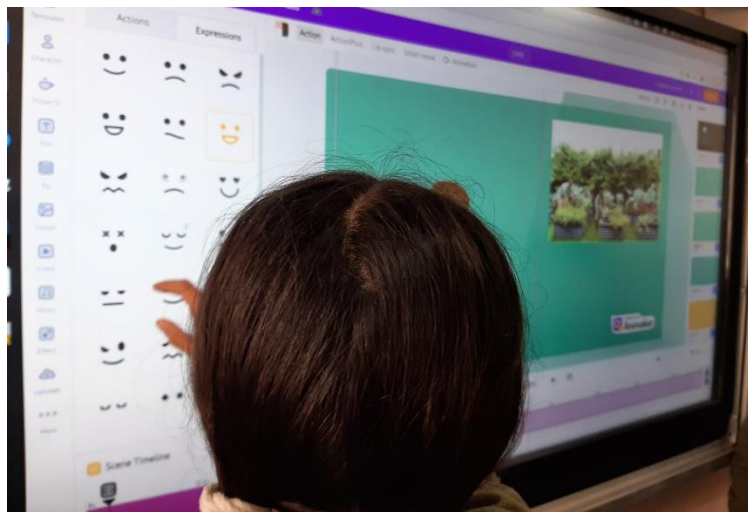
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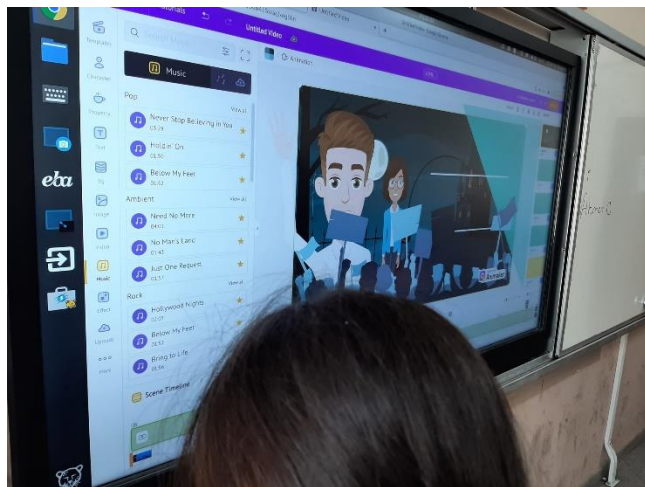
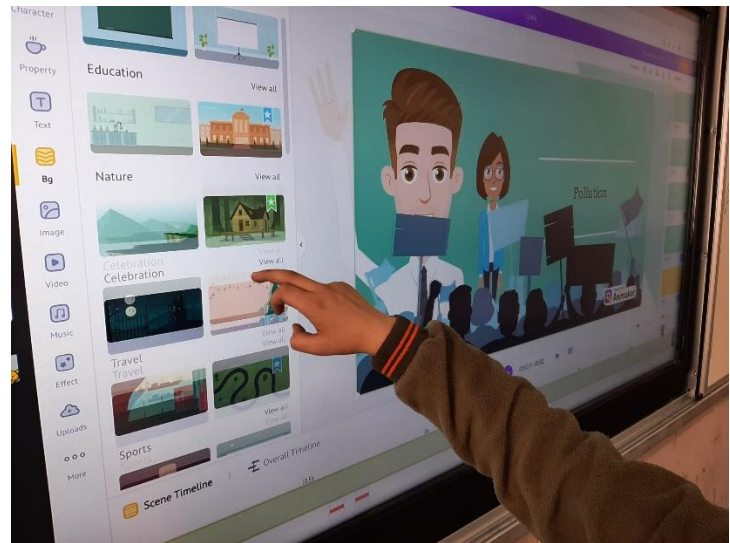
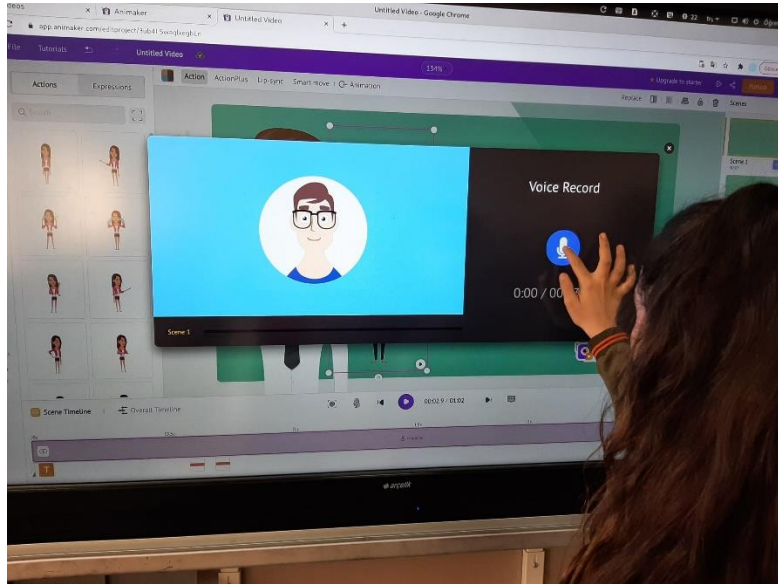
Veli veya Vasisinin Adı-Soyadı:

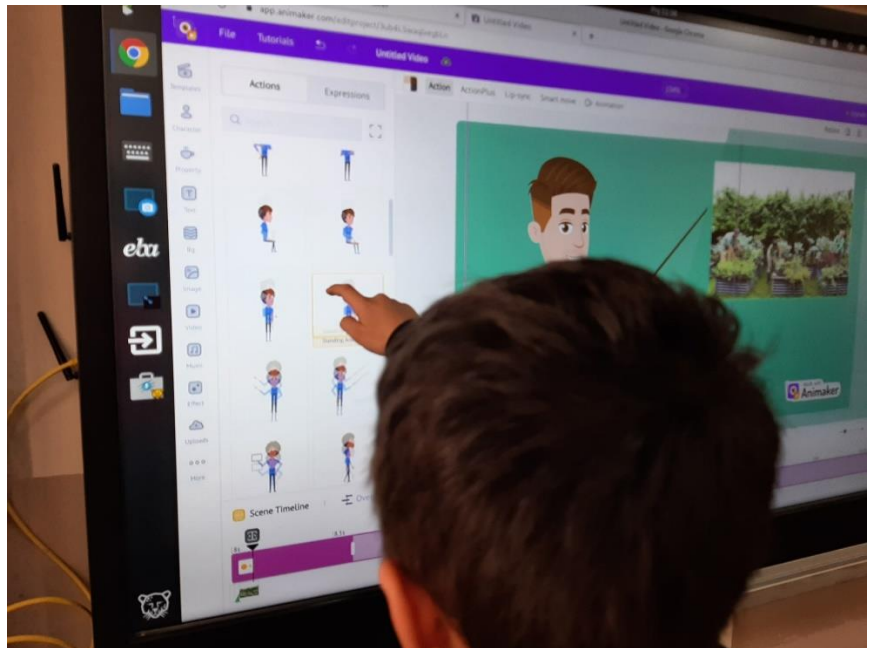
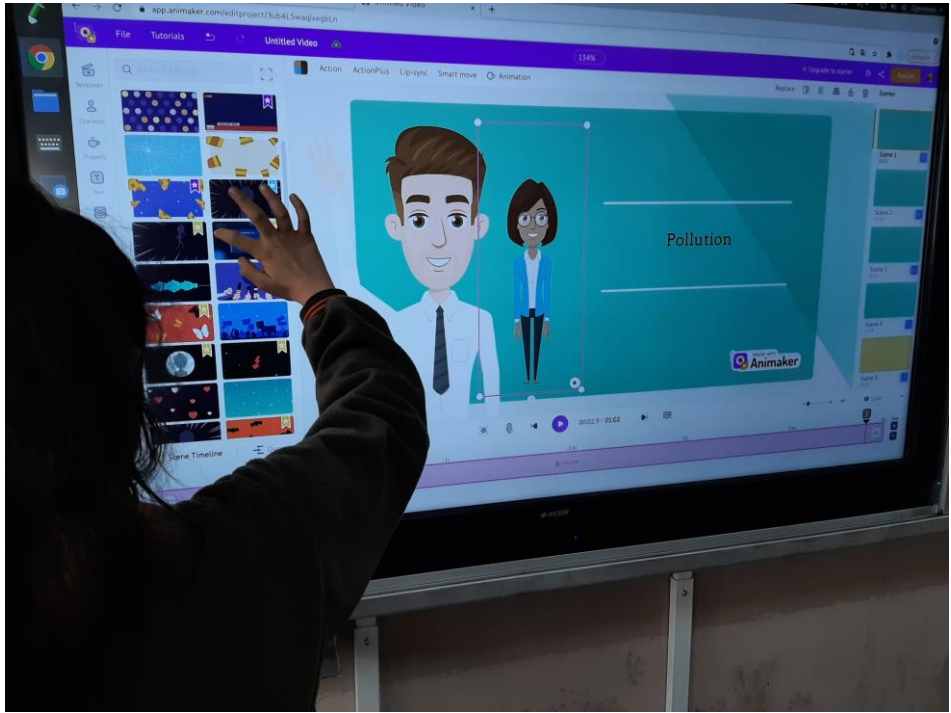
Appendix D.: *Photographs from the Data Collection Procedure*



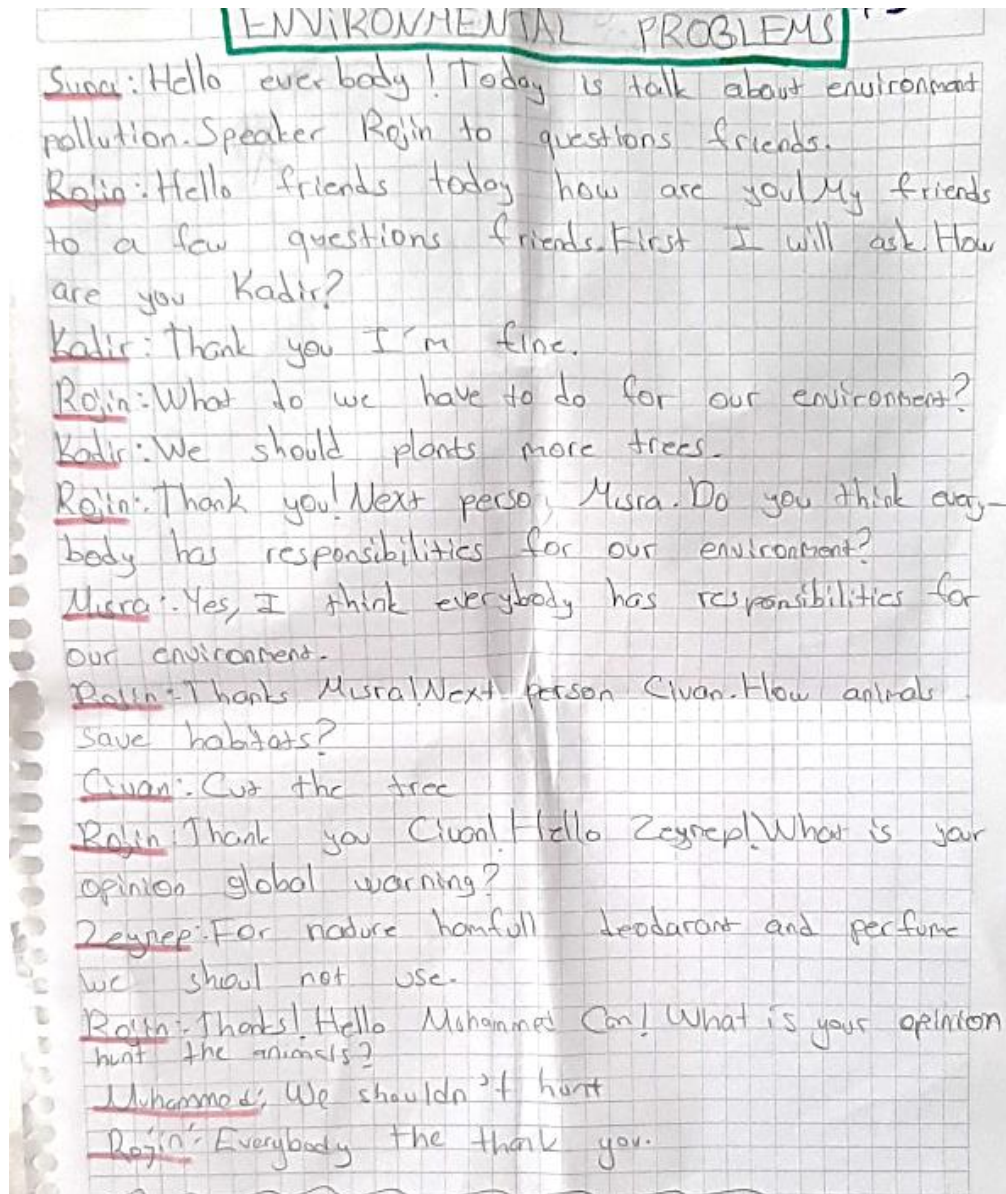








Appendix E.: Students' Stories



LUKA AND ENVIRONMENT

Luka named one kid extrovert. Luka is one day school late and runner house grow up. Some runner after even if one thing pres and slipping. Place hat fallen. to get up banana saw the bark (and understand place fallen and stood up angrily. After is lesson be late understand runner agreement. ^{up} up

- Way speed to go snowy to (rain) to see. and he said

- Fall season how snowy to rain I wonder. He said runner lesson arrive. Lesson teacher to ask = Teacher we fall season but why snowy rain?

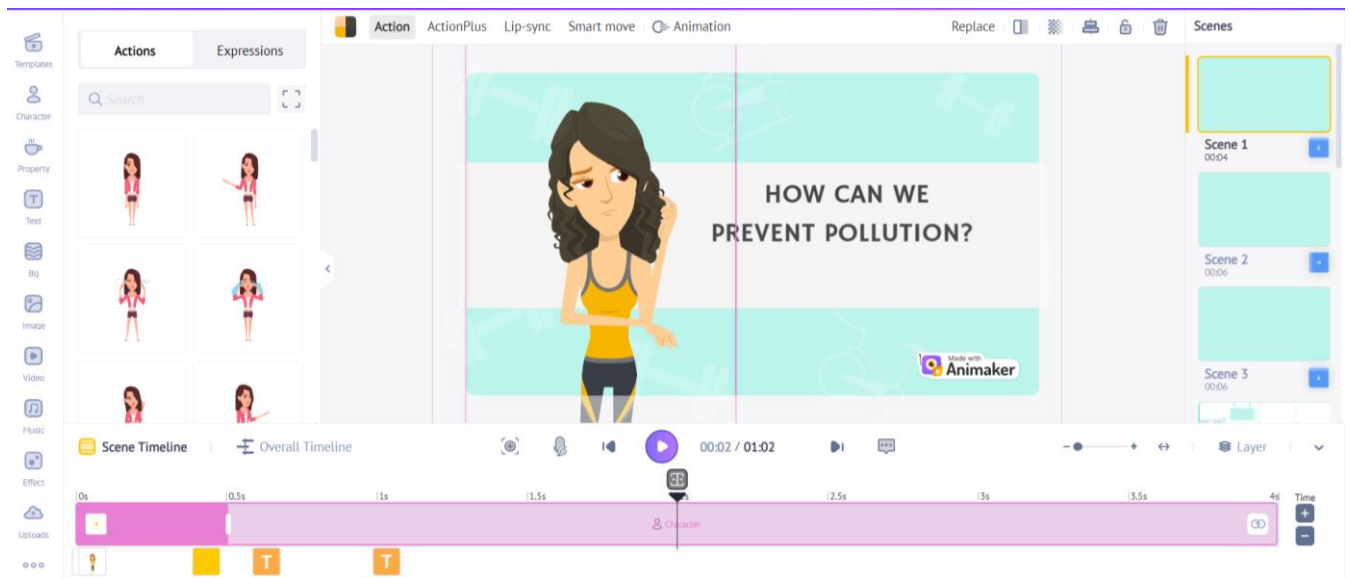
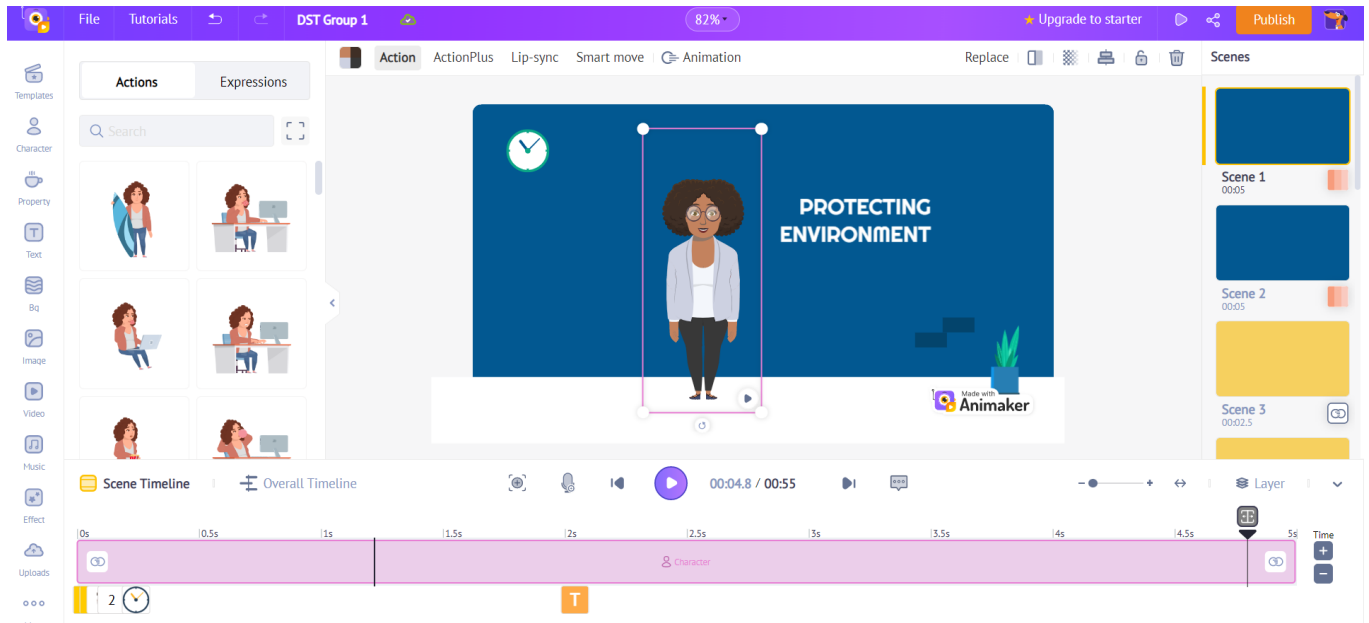
Teacher she said;

Unfortunately some insensitive people environment pollution nature harm to give and this causes global warming. This because of climate change is occurring this nature ballance to spoil... And luka very upset about this situation

Appendix F.: Photographs of the Students' Digital Stories



Appendix G.: The Software 'AniMaker'



CURRICULUM VITAE

Personal Information	
Name	Leyla
Surname	ÇELİK KIZILKAYA
Place and Date of Birth	İzmir 05/11/1997
Nationality	Turkish
Gsm and E-Mail:	(552) 242 3045 leylacelik132@gmail.com
Education	
Primary Education	Kocatürk College
Secondary Education	Altı Eylül Secondary School
Higher Education (Bachelor's Degree)	Pamukkale University
Higher Education (Master's Degree)	Pamukkale University
Foreign Language	
Foreign Language	English
Foreign Language Examination	YÖKDİL
The Year of the Examination	2019
Point	91
Professional Experience	
Years	4 years