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The Effects of Using Digital Stories and Media in Foreign Language Teaching

Gulim Karimova, Pirmagambet Ishanov, Saulesh Mukanova, Svetlana Odintsova, Aigul Aratayeva

Article Info	Abstract
Article History	In Kazakhstan, as in many other countries, foreign language education starts at an
Received: 10 October 2022 Accepted:	early age, but the desired success is not achieved. This may be due to instructional, environmental or socioeconomic factors, as well as cognitive and psychological factors such as the structure of the language, the teaching methods used, and
01 May 2023	attitudes towards language learning. In language education, digital story activities can play an effective role in the development of students' vocabulary and language
Keywords Media Digital stories Foreign language teaching Kazakhstan Primary school students	skills. In this study, the effects of digital storytelling on English vocabulary and grammar knowledge and attitudes towards the course were examined. This research was conducted experimentally with 70 students from 5th grade of a primary school in Almaty. In this study, which observed the effects of digital storytelling and traditional teaching approaches on vocabulary knowledge, grammar knowledge and attitudes towards the lesson, an experimental research design with control group was used and data were obtained through tests and scales. The findings of the study showed that digital storytelling activities in the experimental group were effective on students' English vocabulary knowledge, grammar knowledge and attitudes compared to the control group in which traditional teaching was applied.

Introduction

Changes and developments in the field of technology have made it obligatory to change in educational institutions as in every field and every institution. However, these technological changes and transformations in education are not self-transforming and self-improving (Kumar, Rose, & D'Silva, 2008). Because the use of these technologies in the classroom environment and teaching processes is not only related to technology but also to pedagogy. Moving forward with pedagogy and technology, the quality of education can be improved and students' productivity can be supported (Akram et al., 2021; Heinich, Molenda, Russell, & Smaldino, 2002). Educators who have been able to integrate technological developments into their professional lives have started to stand out compared to individuals who adhere to traditional approaches, and have taken a step forward by creating products that contribute to the innovation ecosystem in their fields of expertise. Students, another stakeholder of educational environments, are undoubtedly one of the significant determinants of this developing technology. The fact that

the new generation, which spends a large part of its daily life intertwined with electronic devices, can be gained in educational environments, that the lessons are interesting and that the efficiency is high is directly proportional to the use of technology in education. Since today is a digital age, it is necessary to integrate technology and technological opportunities with education and to utilize technology in teaching. As a result of these requirements, the integration of technology with education and the use of methods and techniques in education have become possible (King-Sears & Evmenova, 2007; Sydeski, 2013).

Digital environments have gained an important place in our lives with the development of technology. As in the daily lives of individuals, changes are observed in the use of listening and speaking skills as well as reading and writing skills. Technology is of great importance in determining how education will change in the future (Banaszewski, 2005). Technology is everywhere in life and children are exposed to technology from the moment they are born (Hett, 2012). This generation, who came into the world in a period when information technologies were widely used, consists of individuals who can discover the use of digital tools in a short time, learn by doing and experiencing, learn independently and game-centered, can perform multiple operations, have short attention spans and require immediate feedback. In addition, it is a generation that prefers the use of digital tools to printed tools, is generally lonely but has a developed digital social environment (Yang & Wu, 2012). In an age so intertwined with technology, using technology effectively will be an important step in raising the type of individual needed by the age (Aslan, 2011; Van Deursen & Van Dijk, 2014).

With the rapid development of technology and its increasing usability in education, reading habits are changing. Printed books are being replaced by digital books prepared in digital environments. Many printed materials such as books, newspapers and magazines are published in digital media and a large database is created. A digital book is a form of media that contains text, images, movies and sounds that can be read or watched with various software and devices, published in digital media or transferred to digital media and used in this environment (Jones & Brown, 2011; Stevens, 2014). With the addition of multimedia objects such as video, audio, animation, simulation, game, assessment tools, etc. to digital books, books are transformed into interactive digital books (Jeong, 2012). When we look at the literature, interactive e-book, digital interactive book, interactive book, interactive book, digital-interactive book, z-book are concepts used interchangeably. These books are installed on computers, tablet computers, smart phones, e-readers and used in daily life and educational life.

Individuals discover and learn the environment by looking, touching, smelling, hearing, and tasting from birth (Şengül & Sünbül, 2015). Therefore, stimuli that appeal to more senses are thought to provide faster and more permanent learning. At the same time, providing children with different stimuli to stimulate their senses leads them to research, learn and apply what they have learned. Stories are one of the tools used to support this learning experience (Balcı & Sünbül, 2015; Chiraz, 2022; Olgan, 2013; Softa, 2022). Children construct the knowledge of their world through the stories they hear and participate in. They interpret and comprehend literary stories by constructing the "world" described through the text (Haitao, 2021; Ling, 2022; Semino, 2009; Türe & Ozturk, 2021). When we read or hear stories, different parts of our brain actively follow different aspects of the story, as if the person is experiencing the events first-hand (Speer et al., 2009). Instead of being mere recipients of the story being told, students become active participants and can help co-construct the narrative (Alonso et al., 2013).

It is stated that the use of literary works as a tool in foreign language teaching has positive effects. For instance, Collie and Slater (1987) state that literary texts provide a unique tool for the foreign language teaching process, improve individual participation, and add both linguistic and cultural richness to the individual. In addition, Parkinson & Reid-Thomas (2000) state that literary texts can serve as a good model for writing and argue that writing helps to perceive the rhythm of a language. In this context, short stories prepare the teacher to teach the four skills at all language levels (Aghagolzadeh & Tajabadi, 2012; McKay, 2001). In this context, when stories are selected in accordance with children's ages and developmental levels, they become a vast source of information for children, especially because they facilitate the concretization of abstract concepts. Storytelling methods in the primary school period can be listed as storybook storytelling, storytelling with flannel board and figures, storytelling with puppets, storytelling with story cards, storytelling with television strips, and storytelling with digital stories (Olgan, 2013; Sandercock, 2003).

When we look at the traditional story and the digital story, it is seen that both have common features in terms of developing people's creative thinking skills and imagination. However, the need to learn digital tools in order to create a digital story and to guide the person who will create the digital story for this purpose reveal the difference between the traditional story and the digital story (Duveskog et al., 2012). One of the most important aspects of digital stories among book types is that they can be re-accessible at any time with multiple perspectives and enable children to see and perceive the world differently (Toki & Pange, 2014). Accordingly, it can be said that digital stories activate multiple senses and are a suitable material for the teaching environment (Kurudayıoğlu & Bal, 2014; LeBlanc, 2017; Soler Pardo, 2014).

When technology is used in education to support student-centered teaching, it positively affects student performance and develops students' higher-order thinking skills (Çakıroğlu, Gökoğlu, & Çebi, 2015). Considering these development goals, storytelling, which has been practiced in education for many years, has started to evolve itself by adapting to the new order in the light of technological developments, the tradition of storytelling has gained a new life with the partnership of technology and stories in new formats have emerged for different purposes (Figa, 2004). When technological developments are combined with reading practices, students are more willing to use reading resources (Wright, Fugett & Caputa, 2013). Therefore, interactive digital books can be used as motivational tools for reading. The interactive and game-like features of interactive digital books can make digital books attractive, motivating, and provide a fun reading experience (Al Aamri, Greuter, & Walz, 2014).

Many different methods and applications can be mentioned in the integration of new technologies into education. One of these applications is digital storytelling. As a general definition, digital storytelling is the presentation of multimedia elements such as text and audio on multimedia platforms in a computer environment by considering multimedia elements such as text and audio on the axis of a subject (Chung, 2007; Robin & Pierson, 2005; Wang & Zhan, 2010). The digital story provides a basis for a technology application that can be utilized by teachers to use technology more effectively in their classrooms, and it can also enable students to tell their own scenarios and learn effectively by combining video, pictures, music, narration and sound effects using multimedia technologies (Bull & Kajder, 2004; Robin, 2008). Therefore, digital stories function as an effective teaching tool for teachers and an effective learning tool for students (Kajder, Bull & Albaugh, 2005; Hung, 2019; Robin, 2008). Digital

storytelling is a tool that has been extensively studied in recent years and used in many ways in the educational process (Chubko et al., 2020; Hammond et al., 2021; Kogila et al., 2020). The creative, exploratory and collaborative character of digital storytelling fits perfectly with modern learning theories and can be used creatively not only in the classroom setting at school but also in distance learning (Karantalis, N., & Koukopoulos, 2022).

It is hypothesized that digital storytelling can bring many important benefits to students as they have the opportunity to learn how to create their own digital stories. Students can improve their knowledge and academic skills when they are asked to research a topic, look at pictures, record their voices and then choose a particular point of view (O'Byrne, Stone & White, 2022). Researchers who have observed or practiced students working with digital storytelling report high engagement in problem solving and decision making (Chung, 2007). In digital storytelling, students conduct research; therefore, students' analysis, synthesis and critical thinking skills are developed (Ohler, 2008; Ware, 2006). Digital storytelling is most commonly used in the arts and humanities (Combs & Beach, 1994; Handzic & Ismajloska, 2019; LeBlanc, 2017; More, 2008) and language learning (Brenner, 2014; Tsou et al, 2006; Yang & Wu, 2012), research (Castañeda, 2013; Fu, Yang & Yeh, 2022; Green, 2013; Reyes Torres, Pich Ponce & García Pastor, 2012; Robin, 2015) suggests that it can also be an effective strategy for foreign language teaching and learning, especially for children.

In language education, digital story activities play an active role in the development of students' vocabulary and language skills (Leong, Abidin & Saibon, 2019; Nair & Yunus, 2021; Nishioka, 2016). According to Soler Pardo (2014), they emphasized that the use of digital stories in education is an effective learning-teaching tool in the realization of the achievements of listening/watching, speaking, reading and writing skills. According to Shelton, Archambault, and Hale (2017), digital stories enable students to express their thoughts from different perspectives since they contain rich visuals and the voice-over is done by the students themselves. It is stated that digital stories create a positive atmosphere in language learning, are effective in increasing motivation for learning unlike classical lectures, and have significant contributions in correcting language errors (Amelia & Abidin, 2018). It is seen that the digital story, which consists of multimedia components such as audio and video, is much more effective than printed stories in terms of effectiveness and is remarkable by students. It also leads to positive results in reading, speaking and comprehension achievement in English (Mirza, 2020; Precintha Rubini et al., 2019; Razmi, Pourali & Nozad, 2014). Hirvela (2005) and Paran (2008) state that students develop positive attitudes when the educational purpose is clearly explained and when they see story reading as part of a general course. It has been observed that digital stories enable students to actively participate in language learning activities, have a motivational effect on learning, and create positive attitudes towards the course (Suwardy, Pan, & Seow, 2013).

While creating digital stories, certain steps are followed. Yılmaz and Ciğerci (2018) mention five steps in the process of creating digital stories. The first of these steps is writing a story. In this step, the digital storyteller decides what to tell in the content. The second step is sound recording. The digital storyteller makes a sound recording in a quiet environment such as a studio. The third step is collecting visuals such as photos, pictures, videos, etc. to be used in the digital story. The fourth step is the step of creating the digital story where all

components (story, visuals, sound recording) are brought together using programs such as Photo Story, iMovie, Movie Maker, etc. The fifth and final step is to export and share the created digital story. In this step, the digital story is recorded using all kinds of programs and then shared on a platform such as YouTube.

In this study, in order to synthesize the contributions of digital storytelling in foreign language education, the effects of digital story activities on English vocabulary, grammar knowledge and attitudes towards the course were examined by examining domestic and foreign studies. Within the framework of this purpose, answers to the following questions were sought in the study:

- To what extent does the digital storytelling method in primary school 5th grade English lessons affect students' English vocabulary knowledge compared to traditional teaching?

- To what extent does the digital storytelling method in primary school 5th grade English lessons affect students' English grammar knowledge compared to traditional teaching?

- To what extent does the digital storytelling method in primary school 5th grade English lessons affect students' attitudes towards the lesson compared to traditional teaching?

Method

This study was conducted within the scope of the quasi-experimental method developed by Campbell and Stanley (1963) with a study group consisting of experimental and control groups formed out of random distribution. The quasi-experimental method is a method that is carried out by using pre-formed classes in cases where it is very difficult or impossible to randomly form experimental and control groups in experimental studies. This study is a pretest-posttest control and experimental group study. Within the scope of the quantitative paradigm, the effect of experimental procedures on dependent variables was examined. In this context, the vocabulary, grammatical knowledge and attitudes of the students in the experimental group in which digital story intervention was applied in English lesson and the students in the control group in which traditional teaching was applied were compared. The experimental design of the study is shown in Table 1.

	ruble 1. Experime	intal Design of the Study	
Groups	Pre-Test	Experimental	Post-Test
		Procedures	
Experimental	English Vocabulary Test	Digital Storytelling	English Vocabulary Test
Group	English Grammar Test	Activities in English	English Grammar Test
Control	Attitude Scale towards English	Traditional Teaching	Attitude Scale towards
Group	Language Teaching		English Language Teaching

Table 1. Experimental Design of the Study

The Study Group

The study group consisted of 70 students in the 5th grade of a school (primary school) in Almaty. Considering the location of the school, the school is located in the center of the city, but in a neighborhood with a large number of migrants from the surrounding districts. The socioeconomic level of the students participating in the study was

moderate, and their interest and motivation in the lessons were high for three or four students in each class and moderate for the others. When the fourth grade English course achievement averages of the students were evaluated, it was seen that they were close to each other, and experimental and control groups were formed accordingly. Accordingly, class 5/A with 35 students was determined as the control group and class 5/B with 35 students was determined as the control group and class 5/B with 35 students was determined as the experiment. The experimental group in which digital storytelling method was applied consisted of 17 female and 18 male students, while the control group in which traditional teaching was applied consisted of 18 female and 17 male students. The achievement levels of the study group in the first semester English course were equally similar. The researcher conducted the study in a primary school in Almaty and during the students' own class hours. Permission was obtained from the school administration and other teachers for the implementation of the experiment. In this study, two hours of warm-up activities were carried out in the experimental group to familiarize them with digital storytelling and learning techniques. While the researcher trained the experimental group, the control group was taught with traditional question and answer and lecture methods.

Process Steps

At the beginning of the research process, the measurement tools of the study (English Vocabulary Knowledge Test, English Grammar Knowledge Test and Attitude towards English Language Teaching Scale) were administered to the experimental and control groups simultaneously as pretests. In the study, the steps of Robin and McNeil's (2012) digital story creation process were followed and realized for the applications in the experimental group. These components include choosing a meaningful topic, developing a well-structured text, working with high-quality media files, and engaging students in an ongoing assessment process. In this context, it can be stated that each component of the digital story process (from the initial design stage to the final point) is important. In this study, it can be said that all of these stages were included and the process was followed week by week in line with the criteria in the literature.

In the first week of the implementation, students were given a two-hour digital storytelling training prepared by the researchers. With this training, it was explained that the digital story creation process consists of story writing, story board creation and story digitization stages and what should be done in these stages. Sample English digital stories suitable for students' levels were shown. Since all students were asked to digitize the story using the same program to ensure equality, students were informed about how to use the Microsoft Photostory-3 computer program to create digital stories. The students were asked to determine a topic for their digital stories to be created until the next week, covering the themes of "Present Tense", "Present Simple" and "Past Simple" in the 5th grade English curriculum. In the second week, students were asked to discuss and decide on the topics they had chosen. Students were given the right to choose freely so that they would not be hindered by the field knowledge barrier in the English grammar topics they would choose. For the following week, they were asked to create the draft texts of the stories they would write about the topic they had chosen. In the third week of the implementation, the students shared their story scripts with the class. Both other students and the teacher gave feedback on the prepared scenario drafts. If any, concept-rule errors and misconceptions were corrected. The following week, students were asked to make the necessary corrections in their scenarios according to this feedback. They were also asked to

divide the story scenarios into sections. In the fourth week of the implementation, students completed writing their story scenarios. The story divisions were examined and necessary corrections were made. In the next lesson session, they were asked to identify multimedia materials (pictures, music, animation, video, etc.) suitable for the story sections. In the fourth week of the implementation, the story boards created were presented to the class, examined by the teacher and students and necessary corrections were made. The story boards were asked to be organized according to the feedback for the following week. In the fifth week of the implementation, the students organized and completed the story boards according to the feedback. For the next week, students were asked to digitize and voice their stories with Photostory-3 program. In the sixth week of the implementation, the digital stories created by the students were presented in the classroom. One more week was allotted for those who had not yet completed or were incomplete. In the last week of the implementation, the remaining digital story presentations were made and the presentation and evaluation of all digital stories were completed. At the end of the process, the researcher conducted discussion and question and answer activities in the classroom environment about the experiences experienced during the digitization of the stories and saved the digital stories on the computer. The students usually did their work on their home computers and sometimes used the computer lab at school. In the implementation, students completed their work by paying due attention to each of these stages.

In the control group, the same subjects (Present Simple, Present Simple and Past Simple) were taught with the traditional teaching method. The teaching practices in the control group lasted 7 weeks. At the end of the research process, the measurement tools of the study (English Vocabulary Knowledge Test, English Grammar Knowledge Test and Attitude towards English Language Teaching Scale) were applied to the two groups as post-test.

Data Collection Tools

English Vocabulary Test

In this study, Wesche and Paribakht (1993) "s Vocabulary Knowledge Scale (VKS) was used as the data collection tool. The VKS, which was first developed by Paribakht and Wesche in 1993 at the University of Ottawa to measure vocabulary learning in English Language Programs (Paribakht & Wesche, 1993), is theoretically based on the Developmental Approach, one of the approaches to measuring vocabulary in depth. The VLS differs from others in that it provides high levels of verifiable information as well as showing the extent to which the student knows the word and how much he/she has mastered the meaning of the word (Paribakht & Wesche, 1997). In the vocabulary knowledge scale, "receptive" vocabulary knowledge is considered to be more basic and beginner level compared to "productive" vocabulary knowledge and is criticized for this aspect (Schmitt, 2010). This study is based on the approach of recognizing words before reading activities. Since it is aimed to memorize the recognized words in a purposeful way, the focus is on recognizing the word, keeping it in memory and knowing its meaning rather than teaching and pronouncing the word in every aspect. This scale, which is a suitable tool for measuring the recognition and use of perceptual words at the beginning level within the scope of reading activities, was preferred for these reasons. In the scoring of the test, 1 point was given for the first option "I do not remember seeing this word before"; 2 points for the second option "I have seen this word before, but I do not remember its meaning"; 3 points for the third option "I know this word. It means (English synonym or Kazakh equivalent)". If the answer given is not correct, 2 points are given. For the fourth option "I can use this word in a sentence" 4 points were given and those who wrote a sentence in this option were asked to answer the third option. If the sentence was incorrect but the correct answer was given in the third option, 3 points were given, and if the answer given in the third option was incorrect, 2 points were given. In this way, the total score to be obtained as a result of answering the entire test consisting of 25 questions correctly is 100. The minimum score that can be obtained from the test is 25. The Cronbach's Alpha reliability coefficient of the vocabulary test calculated in the pilot study was .79.

English Lesson Grammar Test

This test consisted of 25 multiple-choice questions covering the topics in the first three units in the 5th grade of primary school. In order to develop this test, the objectives and behaviors related to grammatical knowledge were written and a specification table was created based on the 5th grade Foreign Language (English) Teaching Program. In accordance with these, many multiple-choice questions on grammatical knowledge covering all objectives were prepared. The prepared questions were examined by English teachers and necessary corrections were made. A total of 40 of the more qualified questions were administered to a total of 100 students in the fifth grade of two different elementary schools. The final test was formed by selecting the questions with an item discrimination power between .30 and .68 and an item difficulty index between .32 and .78 from the 50 questions. The reliability coefficient (KR-20) of the final test consisting of a total of 25 questions was found to be 0.85 and the standard deviation was found to be 4.05: 4.05.

Attitude Scale towards English Language Teaching

In the collection of the research data, the Likert-type "Attitude Scale towards English Language Teaching" adapted from Martin (2012)'s Elemantary Science Methods: A Constructivist Approach" prepared by Martin (2012) and adapted to the English course, Likert-type "Attitude Scale towards English Course" was used. Likert Method is a widely used method due to its easy construction, high reliability and validity, and the fact that it can be used successfully in measuring many affective characteristics. Likert instruments consist of a set of sentences and answer formats given to each sentence. In order to obtain the scores from the instrument, the scores of each item are summed. In general, a five-point response format is used with statements such as "Strongly Agree (5), Agree (4), Undecided (3), Disagree (2) and Strongly Disagree (1)" (). Since it was desired to examine an affective characteristic such as attitude towards the course, the Likert-type scale was found appropriate for this study. In the process of writing and adapting the items of the scale, after examining the existing attitude scales, the attitude items were finalized after going through various stages by taking expert opinions. In the process of creating the attitude scale, 25 attitude statements collected in the item pool were presented to the experts for their opinions and evaluations. The 25-item draft scale, which includes different dimensions of attitude, was applied to 100 students studying in the fifth grade of primary school in the 2021-2022 academic year. The data obtained were analyzed in the SPSS 26.0 program and the content validity of the scale was tested by expert opinions and construct validity was tested by exploratory factor analysis. As a result of the factor analysis of the scale; five items were found to be unworkable and were removed from the scale. As a result of the analysis, it was understood that the unidimensional structure of the scale consisted of a total of 20 items, 10 of which were negative and 10 of which were positive. The KMO value of the scale was calculated as 0.872 and Bartlett's test as 10080.25. The Cronbach's Alpha reliability coefficient of the 20-item, 5-point Likert-type scale was calculated as .83. These findings show that the scale of attitudes towards English is valid and reliable for 5th grade students.

Data Analysis

In the study, the arithmetic mean and standard deviation values of the scores of the tests were examined to determine the attitude towards English lesson, vocabulary and grammar knowledge of the fifth grade students in the experimental and control groups. In addition, whether the data obtained from the scales met the assumptions of normal distribution was analyzed by Shapiro Wilk test. According to the results of the analysis, attitude, grammar knowledge and vocabulary knowledge data were found to be normally distributed. Unrelated sample t-test was used to determine whether the mean scores obtained from the scales changed according to the groups and the significance level was determined as .05.

Findings

Table 2 shows the results of the analysis of the pre-test vocabulary knowledge levels of the experimental and control groups. According to the results of the analysis, the mean vocabulary knowledge score of the participants in the experimental group was 32.91 ± 3.93 , while the mean score of the control group was 33.74 ± 4.54 . The t value of 0.817 calculated between the mean scores of the two groups shows that there is no significant difference at 0.05 significance level. At the beginning of the study, it was observed that the experimental and control groups had an equal distribution in terms of vocabulary knowledge.

Table 2. t Test Analyses of Participants' Vocabulary Knowledge Pretest Scores

	Group	Ν	Mean	Std. Deviation	t	р
Pre Vocabulary	Experimental	35	32.91	3.93	-0.817	0.417
	Control	35	33.74	4.54		

Table 3 shows the results of the analysis of the pre-test grammar knowledge levels of the experimental and control groups. According to the results of the analysis, the mean grammar knowledge score of the participants in the experimental group was 7.90 ± 2.79 , while the mean score of the control group was 8.14 ± 2.94 . The t value of 0.367 calculated between the mean grammar knowledge scores of the two groups shows that there is no significant difference at 0.05 significance level. It is understood that the experimental and control groups had an equal distribution in terms of grammatical knowledge at the beginning of the study.

Table 3. t Test Analyses of Participants' Grammar Knowledge Pretest Scores

	Group	Ν	Mean	Std. Deviation	t	р
Pre Grammar	Experimental	35	7.90	2.79	-0.367	0.714
	Control	35	8.14	2.84		

Table 4 shows the results of the analysis of the pre-test English course attitude scores of the experimental and

control groups. According to the results of the analysis, the mean score of the participants in the experimental group was 3.09 ± 0.82 and the mean score of the control group was 3.19 ± 0.73 . The t value of 0.537 calculated between the mean attitude scores of the two groups shows that there is no significant difference at 0.05 significance level. At the beginning of the study, it was observed that the experimental and control groups had an equal distribution in terms of attitudes towards English lesson.

Table 4. t Test Analyses of Participants' Attitudes Towards My English Course Scale Pre-test Scores

	Group	Ν	Mean	Std. Deviation	t	р
Pre Attitude	Experimental	35	3.09	0.82	-0.537	0.593
	Control	35	3.19	0.73		

Table 5 shows the analysis results of the post-test vocabulary knowledge levels of the experimental and control groups after the experimental procedures of the study. According to the results of the analysis, the mean post-test vocabulary knowledge scores of the participants in the experimental group were 56.57 ± 9.51 , while the mean score of the control group was 44.20 ± 10.35 . The t value of 5.205 calculated between the mean scores of the two groups shows that there is a significant difference at 0.05 significance level. In the study, the students in the experimental group, in which the digital story application was performed as an experimental procedure, achieved higher vocabulary knowledge levels compared to their peers in the control group.

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	Group	Ν	Mean	Std. Deviation	t	р
Post Vocabulary	Experimental	35	56.57	9.51	5.205	0.000
	Control	35	44.20	10.35		

Table 5. t Test Analyses of Participants' English Vocabulary Knowledge Posttest Scores

Table 6 shows the results of the comparative analysis of the post-test grammar knowledge levels of the experimental and control groups after the experimental procedures of the study. According to the results of the analysis, the mean post-test grammar knowledge score of the participants in the experimental group was 15.79 ± 4.05 , while the mean post-test score of the control group was 12.96 ± 2.99 . The t value of 3.710 calculated between the mean scores of the two groups shows that there is a significant difference at 0.05 significance level. In the study, the students in the experimental group, in which the digital story application was performed as an experimental procedure, achieved higher levels of grammatical knowledge compared to their peers in the control group.

Table 6. t Test Analyses of Participants' English Grammar Posttest Scores

	Group	Ν	Mean	Std. Deviation	t	р
Post Grammar	Experimental	35	15.79	4.05	3.710	0.000
	Control	35	12.96	2.99		

Table 7 shows the results of the comparative analysis of the post-test English attitude scale scores of the experimental and control groups after the experimental procedures of the study. According to the results of the

analysis, the mean post-test attitude score of the participants in the experimental group was 4.33 ± 0.72 , while the mean post-test attitude score of the control group was 3.69 ± 0.61 . The t value of 4.759 calculated between the mean scores of the two groups shows that there is a significant difference at 0.05 significance level. In the study, the students in the experimental group, in which the digital story application was performed, obtained high level attitude scores in the post-test compared to their peers in the control group.

Table 7. t Test Analyses of Participants' Attitude Towards My English Lesson Scale Posttest Scores

	Group	Ν	Mean	Std. Deviation	t	р
Post Attitude	Experimental	35	4.33	0.72	4.759	0.000
	Control	35	3.69	0.61		

Discussion and Conclusion

In this study, the effect of digital storytelling method on vocabulary knowledge, grammar knowledge and attitudes in a foreign language compared to traditional teaching was examined. According to the first finding of the study, the experimental group students in the digital storytelling method acquired higher vocabulary knowledge compared to their peers in the control group in which traditional teaching was applied. These findings are similar to the findings of Har, Mohamad, and Jamal (2019), Leong, Abidin, and Saibon (2019), Robin (2006), and Wright (2000). Robin (2006) states that the digital storytelling method improves writing, organizing, presenting, communication, problem solving and evaluation skills. With the digital storytelling method, students' awareness of the subjects develops, cognitive load decreases and learning gains increase.

It is very important to have English vocabulary skills because vocabulary is the basic skill that needs to be acquired to understand and make sense of English sentences. Without vocabulary knowledge, meaning cannot be extracted from sentences. With the digital storytelling method, students make sense of the words in the text. This serves as a method that enables students to learn vocabulary effectively. Wright (2000) suggested that digital stories can help learners to understand language to ensure meaningful language learning. Therefore, digital storytelling is an important tool used for learning purposes, especially for English language learning. The use of digital storytelling ensures that implicit vocabulary teaching is carried out in an interesting and attractive way.

Another finding of the study is the effects of digital storytelling on English grammar knowledge. According to the findings of the study, the students in the experimental group, in which the digital storytelling method was applied, achieved a higher level of grammatical knowledge compared to their peers in the control group, in which traditional teaching was applied. These findings are similar to the findings of Al-Amri (2020), Hamid, Halim, and Sahrir (2020), Kim (2022), and Nishioka (2016).

Learners access the input in the target language by listening or reading. With digital storytelling, the learner has the opportunity to see the grammatical structure, vocabulary, language functions, spelling and punctuation of the target language concretely, and has the chance to look back and repeat when needed (Melanlıoğlu, 2020). According to Ohler (2008), Digital storytelling not only tells stories digitally, but also creates an active learning

situation on the go. In a way, active digital storytelling enables effective learning of the rules of language in a multifaceted way.

The last finding of the study is about the changes in attitudes towards the English language course that digital storytelling brings about. According to the findings of the study, the experimental group students in the digital storytelling method developed positive and high level attitudes towards English course compared to their peers in the control group in which traditional teaching was applied. These findings are similar to the research findings of Derewianka (2003), Lambert (2010), Kilickaya and Krajka (2012), Nation (2003), Ohler (2008), Schäfer (2017), Stranks (2003), Tomlinson (2003). The importance of using digital stories in language teaching has also been demonstrated by experimental research. According to Kilickaya and Krajka (2012), almost all of the publications addressed in digital story research revealed that the participants exhibited positive attitudes and enjoyed the activities. In his study, Schäfer (2017) stated that asking students to create digital stories about a given topic takes them out of passivity and enables them to create their own products and become more motivated towards the lesson, and they also give feedback to each other by sharing what they have done with their friends. In this process, the materials to be used are important for students not to give up learning the language, to develop positive attitudes towards the language and to make learning the language fun.

The use of different and rich materials contributes a lot to foreign language teaching (Derewianka, 2003; Nation, 2003; Stranks, 2003; Tomlinson, 2003). As mentioned earlier, the attractiveness factor of learning materials plays an important role in engaging learners' interest in learning English vocabulary (Guthrie & Wigfield, 2000). The use of digital storytelling not only gauges learners' interest in learning, but also ensures that learning is indirectly carried out in a fun and relaxing way. According to Kajder (2004), Lambert (2010) and Ohler (2008), digital storytelling is a short narrative that includes visuals, audio narration and background music. Digital storytelling allows stories to be told from page to page using multimedia such as images, graphics, sounds, music and more.

Digital story progression increases educational efficiency and student motivation by producing materials and activities suitable for the four skill areas. Three-dimensionality and movement helped students to concentrate their attention and increase their motivation towards the lesson (Özerbaş & Öztürk, 2017). Increasing the motivation levels of foreign language learners increases the efficiency in teaching. Students are offered an environment where they can have fun and learn at the same time. With the advancement of technology, the availability of online tools and largely available software, digital storytelling can be created and used for language teaching and learning.

In summary, it was concluded that the digital storytelling method used in primary school English class can increase English vocabulary and grammar knowledge, as well as positively affect student attitudes, motivation, selfconfidence and interest in the lesson. In addition, this method is also effective in creating a fun classroom atmosphere. Based on the results of the study, it is recommended to conduct experimental studies on the effects of using digital stories on other language skills in foreign language education. In addition, the effect of the digital story method can be observed by applying it to different areas such as writing and reading in foreign language education. Digital storytelling method can be tested in foreign language courses at middle and high school levels. In summary, it is recommended that further research be conducted on the use and benefits of digital storytelling in foreign language teaching.

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