

# **Education and Science**

**Original Article** 

Vol 47 (2022) No 209 69-94

Digital Storytelling Activities in the Course of Human Rights, Citizenship, and Democracy in Primary School \*

Kader Mangal<sup>1</sup>, Nuray Kurtdede Fidan<sup>2</sup>

**Abstract Keywords** 

This study dealt with the analysis of the effects of digital storytelling on students' entrepreneurship tendency and their attitudes towards the fourth grade course of Human Rights, Citizenship, and Democracy. The participants of the study were 44 fourth grade students attending a public school during the spring semester of the school year 2018-2019. The study employed a mixed research method with the embedded design. In the quantitative dimension of the study, a semi experimental design with pre-testpost-test control group was used. The qualitative data of the study were collected through student diaries. More specifically, the data were collected through student, the researcher diaries and the following scales: "Entrepreneurship Tendencies Inventory for Children" and "Attitude Scale for Human Rights, Citizenship, and Democracy". In the study, the Wilcoxon Signed Ranks Test and the dependent and independent groups t-tests were used. The findings of the study indicated that the digital storytelling employed in the experimental group was more effective in terms of the students' attitudes towards the courses and their entrepreneurial tendencies in contrast to the methods and techniques used in the control group. Additionally, it was found that digital storytelling activities were effective in the improvement of student attitudes in the experimental group towards the course related to the Consensus Unit and in the improvement of their entrepreneurial tendencies. Another conclusion of the study was that the descriptive analysis of the student diaries showed that most students had positive opinions about the course which was delivered through digital storytelling.

Digital storytelling Entrepreneurial tendencies Attitudes Human rights Citizenship, and democracy courses Primary school

## Article Info

Received: 02.01.2021 Accepted: 01.04.2022 Online Published: 02.04.2022

DOI: 10.15390/EB.2022.10540

<sup>\*</sup> This article is derived from Kader Mangal's Master's thesis entitled "The effect of digital narration activities on students entrepreneurship skills and attitudes towards the course in human rights, citizenship and democracy", conducted under the supervision of Nuray Kurtdede Fidan.

<sup>1 6</sup> Ministry of National Education, Sandıklı Menteş Primary School, Turkey, kader\_mangal@hotmail.com

<sup>&</sup>lt;sup>2</sup> Afyon Kocatepe University, Faculty of Education, Department of Primary Education, Turkey, nkurt@aku.edu.tr

#### Introduction

Digital storytelling which is the creation of digital stories about any subject using computer-based tools has become a powerful teaching tool used in education for both students and educators (Meadows, 2003; Robin, 2006; Wu & Chen, 2020). Digital stories are created by combining various multimedia sources such as texts, images, and sounds (Chung, 2007; Lambert, 2013; Robin, 2006). Stories formed by combining these multimedia resources add a new and artistic dimension to traditional storytelling (Xu, Park, & Beak, 2011). Thus, stories transform from classic stories into modern stories (Rule, 2010) and into an artistic, aesthetic, and creative product (Sawyer & Willis, 2011). The individuals who create the story in digital storytelling are the people who interact with the story, shape it, and can use information technologies and computers on average (Dorner, Grimm, & Abawi, 2002).

Digital stories are an important teaching approach (Wu & Chen, 2020) in the development of students' technology and media literacy, often cited as an educational benefit, and used by teachers for students of all ages (Garcia & Rossiter, 2010). Teachers can use digital stories to present an idea, to demonstrate a process, and to present a content on some topics (Wang & Zhan, 2010) or to make students active participants through technology in learning environments (Robin, 2006). In addition to being an important tool used for the development of students' language skills, digital stories also help develop 21st century skills such as visual skills, collaboration skills, and technology use (McLellan, 2006). Many communication elements and digital resources are used in digital stories. For this reason, digital stories make many contributions to individuals' assimilation of information establishing relationships with other information and structuring information (Garrety & Schmidt, 2008). Students' multi-literacy skills develop as they learn how digital stories and culturally rich messages can be produced, distributed, and interpreted in a variety of ways by different audiences (Vogradova, Linville, & Bickel, 2011).

When previous studies are examined, many contributions of digital storytelling in learning environments and development of different skills have been determined. Digital storytelling increases students' motivation and improves their communication skills and enriches the instructional process through technology-assisted presentations (Demirbas, 2019; Demirer, 2013; Göçen, 2014; Karakoyun, 2014; Ünlü, 2018; Yılmaz, 2019; Yürük, 2015). It is also reported that digital storytelling improves students' writing and linguistic skills (Balaman, 2016; Gider, 2019; Green, 2011; Sever, 2014; Tetik, 2020) and their reading pace and comprehension (Çiftçi, 2019; Gimeno-Sanz, 2015; Yoon, 2013). There are also some findings indicating that digital storytelling has very positive effects on student attitudes towards courses (Büyükcengiz, 2017; Kayalı, 2019; Yoon, 2013) and on comprehension skills of students in regard to listening (Sandaran & Kia, 2013). The other positive effects of digital storytelling have been cited in various fields as follows: creative problem-solving skills (Hung, Hwang, & Huang, 2012; Yılmaz, 2019), views about scientific views (Toprak, 2019), design-oriented thinking skills (Kayalı, 2019), academic achievement, critical thinking skills, and internal control (Ünlü & Yangın, 2018). Additionally, there are findings that show positive effects of digital storytelling on scientific process (Büyükcengiz, 2017; Hung et al., 2012), value acquisition (Yürük, 2015), improved academic achievement (Erdoğan, 2021; Göçen, 2014; Hung et al., 2012), and the understanding of science concepts (Titus, 2012).

Attitude in learning and teaching environments can be considered as one of the most important affective characteristics that affect learning. Attitude is a psychological disposition expressed by evaluating a certain entity, events, individuals, or ideas, to some degree, positively or negatively (Albarracín, Johnson, Zanna, & Kumkale, 2005). Measuring attitudes in the teaching-learning process are beneficial in terms of being informed about the existing preferences of learners in order to determine their attitudes in a certain time period and to predict their future behaviors, to change their attitudes, or to form new attitudes among them (Nuhoğlu, 2008). It is important for students to have positive and negative attitudes towards the Human Rights, Citizenship, and Democracy course in order to achieve the desired objectives of the course (Bozbek & Demir, 2014). Additionally, understanding these attitudes of the students will guide the teacher in determining the teaching strategies, methods-techniques, and

teaching materials to be used in the lesson. However, it is considered as important to support students' success and interests.

Entrepreneurship is a multi-component skill that includes various characteristics such as realizing the possibilities in the immediate environment, making plans in regard to such opportunities, implementing the plans about them, being willing to be successful, pursuing innovations, being self-confident and having self-esteem, solving problems, struggling, taking risks and developing projects (Yurtseven & Ergün, 2018). Entrepreneurship tendency is a concept related to individuals' orientation to entrepreneurship and their trust in themselves for their attempts in this regard (Güreşçi, 2014). There are numerous studies on the entrepreneurship tendency which employed participants from higher education institutions and secondary schools (Athayde, 2009; Aydın & Öner, 2016; Bozkurt & Erdurur, 2013; Büyükyılmaz, Karakaya, & Yıldıran, 2015; Damar, 2015; Güreşçi, 2014; İşcan & Kaygın, 2011; Patır & Karahan, 2010; Sarıtaş & Duran, 2017; Vaidya, 2007). Given that entrepreneurship is one of the most significant capabilities for individuals its education should start from early years of primary education (Bartulović & Novosel, 2014). It is seen that the terms "entrepreneurial personality traits" and "entrepreneurial tendencies" are used interchangeable indicating that these terms do not have a clear definition (Yurtseven & Ergün, 2018).

When the studies are examined (Aslan & Aybek, 2018; Durdi & Erdamar, 2020; Hastürk, 2019; Sağlam & Hayal, 2015; Toprak & Demir, 2017), it is seen that teachers and students have difficulties because the subjects in the textbook in the Human Rights, Citizenship, and Democracy course are above the development of primary school students. In each unit, students come across various topics and conceptual knowledge in the texts of the textbooks that they need to learn within the framework of outcomes, and they have difficulties in learning and transforming these concepts into real life skills and in acquiring skills. Both the hard-to- understand and abstract nature of the terms and concepts become even more problematic for primary school students who are in the concrete operational period. Many students learn these terms and concepts by memorizing without internalizing them and forget what they have memorized over time. In classrooms where traditional teaching methods are used, teachers deliver the courses mostly using the lecture method and question-answer sessions (Aslan & Aybek, 2018; Durdi & Erdamar, 2020; Hastürk, 2019; Sağlam & Hayal, 2015; Toprak & Demir, 2017). However, permanent learning does not occur in such environments as this process makes students passive and leads them to memorize. For this reason, students cannot apply what they have learned in their lives and also develop negative attitudes towards the courses. In the study of Toprak and Demir (2017), classroom teachers stated that students could not transfer the achievements to daily life. All of the participants stated that the concepts in the textbook were abstract and therefore students had difficulty in learning. All of the participants expressed the concepts of consensus, democracy, equality, justice, responsibility, freedom, and empathy as abstract concepts and emphasized that students had difficulties in learning. In order to solve these problems, it is aimed that students learn by internalizing knowledge and skills in context with visual and auditory elements using digital storytelling. It is reported that digital storytelling is an effective method in the acquisition of the skills of the 21st century by students (Jakes, 2006; Jakes & Brennan, 2005). Therefore, the aim of using the digital storytelling is to make students active participants of their learning process to acquire these skills and entrepreneurial skills. Although digital storytelling is done individually, it is actually a group practice. In particular, students are expected to develop a product by collaborating. Students' entrepreneurial skills are important at all stages of digital stories. It can be said that entrepreneurship implicitly exists in all stages of the process including planning, determining the problem, dealing with the problem within a story, finding creative solutions to the problem, researching on the internet, making pictures suitable for the story, and vocalizing. Entrepreneurial skills are one of the 21st century skills and are also covered in the Turkey's education vision for 2023. Entrepreneurship skills are also included in primary school educational programs. These skills are part of the Human Rights, Democracy, and Citizenship curriculum as one of the Turkey's Qualifications Framework which is made up of eight competence components. This area of competence includes taking initiative, entrepreneurship, and the ability to transform the individual's thoughts into action. It covers creativity, innovation, and taking risks, as well as the ability to plan and

manage projects to achieve goals. Human Rights, Citizenship, and Democracy course aims at raising active citizens who can solve the problems faced in society. Additionally, the curriculum of this course emphasizes the significance of raising individuals who participate in democratic decision-making processes based on cooperation and knowledge, seek consensus in solving problems related to daily life, adopt and act in accordance with active citizenship principles, and take responsibility for the improvement and development of coexistence conditions (Ministry of National Education [MoNE], 2018). Therefore, the entrepreneurship skills are critical for the course. Entrepreneurship skills can only be acquired through experience based on active learning experiences. Thus, it is important to use approaches such as active learning and collaborative learning to improve students' entrepreneurship skills in teaching. It can be said that entrepreneurship is actually supported by the active role of students in all stages of digital storytelling.

When researches are examined, it is seen that the studies based on digital storytelling are in the learning of the mother tongue and in the development of literacy activities (Balaman, 2016; Çiftçi, 2019; Gider, 2019; Green, 2011; Sandaran & Kia, 2013; Sever, 2014; Tetik, 2020; Yoon, 2013). It is seen that especially that digital storytelling is used in the acquisition of concepts (Brace, Finkelstein, & Sealy, 2015; Büyükcengiz, 2017; Hung et al., 2012; Titus, 2012), and in the development of different skills (Büyükcengiz, 2017; Demirbaş, 2019; Demirer, 2013; Göçen, 2014; Hung et al., 2012; Karakoyun, 2014; Kayalı, 2019; Ünlü, 2018; Yılmaz, 2019; Yürük, 2015). Additionally, in these studies, the effects of digital storytelling on academic success (Erdoğan, 2021; Göçen, 2014; Hung et al., 2012; Ünlü & Yangın, 2018), problem solving (Hung et al., 2012; Yılmaz, 2019), and attitude towards the course (Büyükcengiz, 2017; Kayalı, 2019; Yoon, 2013) were tried to be determined. Although there are studies examining the effect of digital storytelling in different fields, when the relevant literature is scanned, it is seen that there are no studies examining the effect of digital storytelling on entrepreneurship and attitude towards the course in the Human Rights, Citizenship, and Democracy course at primary school level in Turkey. This research is important as it is foreseen to fill the gap in the literature. This research is considered important in order for students to gain entrepreneurship skills which are accepted as 21st century skills and to develop positive attitudes towards the course. It is predicted that determining the effectiveness of digital storytelling will contribute to teachers' use of this teaching tool. Therefore, the aim of this study was to examine the effects of digital storytelling activities on students' entrepreneurial tendencies and attitudes towards the course in the Human Rights, Citizenship, and Democracy course.

# Problem and sub-problems

- 1. What is the effect of digital storytelling practices in the Human Rights, Citizenship, and Democracy course on students' attitudes towards the course and their entrepreneurial tendencies?
  - a) Is there a significant difference between the pre-test scores of the experimental and control group students in their attitudes towards the course and their entrepreneurial tendencies?
  - b) Is there a significant difference between the post-test scores of the experimental and control group students in their attitudes towards the course and their entrepreneurial tendencies?
  - c) Is there a significant difference between the pre-test and post-test scores of the experimental group students in their attitudes towards the course and their entrepreneurial tendencies?
  - d) Is there a significant difference between the pre-test and post-test scores of the control group students in their attitudes towards the course and their entrepreneurial tendencies?
- 2. What are the views (according to the diaries) of the students about the courses delivered through the digital storytelling activities?

#### Method

This section presents information about the research model, participants, data collection tools, data collection procedure, and data analysis.

## Model of the research

The study employed a mixed research model. The goal in the mixed research model is to employ both quantitative and qualitative methods in data collection, data analysis, and the discussion of the finding (Creswell & Tashakkori, 2007). More specifically, the study employed an embedded design which is part of the mixed research models. In the embedded design, a data set has a secondary supportive function (Creswell & Plano-Clark, 2014). In the current study, the qualitative data supports the quantitative ones. The quantitative component of the study was designed as "pre-test and post-test with a control group". In the qualitative component of the study which supports the quantitative component, the data were collected through diaries.

#### Study Group

The participants of the study were 44 fourth grade students attending a public school in Afyonkarahisar during the school year of 2018-2019. The participants were assigned to either control group (n=22) or experiment group (n=22). The primary school that the participants were attending was selected through the convenience sample in that the first author was working at the school as a teacher. There were 13 female and 9 male students in the experiment group in which the digital storytelling activities were employed. In the control group in which the existing teaching and learning activities were used, there were 12 female and 10 male students.

#### Context of the Research

The school that the participants were attending was a public school in Afyonkarahisar. In the study, a personal information form was used to collect general information about the students. In this direction, in both groups of the participants, the parents were high school graduates. The mothers were mostly not employed (75%) and the majority of the fathers were employed at private firms (56%). In terms of the fathers' occupation, the participants in both groups were similar. The first author delivered the fourth unit the Human Rights, Citizenship, and Democracy course, entitled Compromise, which was developed by the Board of Education to the control group and the experiment group. The unit was taught through the digital storytelling activities in the experiment group and through the activities given in the related curriculum program) in the control group. The unit of compromise is made up of four learning outcomes and lasts for four weeks. The reason for creating a digital narrative in the consensus theme, that is, the reason for choosing the consensus theme, is that the gains in its content include students' realizing the problems in their environment and producing solutions to these problems. The entrepreneurial skills require students to notice a problem in their environment, to feel uncomfortable with this problem, and to take action to solve this problem. Digital storytelling has been used as an educational tool to help students achieve similar outcomes. In all stages of developing a digital story (writing the story text, discussing the text with group members, developing a scenario, finding the multimedia items suitable for the scenario, creating the storyboard consistent with the scenario and multimedia elements, uploading the visuals and the scenario to the storyboard in accordance with the storyboard and voicing them in the program, adding effects, and choosing background music) and creating a product to solve a problem in terms of content entrepreneurship skills were thought to be improved. Entrepreneurship tendency inventory includes entrepreneurship success, problem solving, innovation, and self-confidence dimensions. The students encountered various problems while developing their stories which they resolved through cooperation and compromise. They generated new stories by developing creative new ideas and using their prior knowledge. In order to develop their stories, they did research in harmony with the group and collected the necessary multimedia resources. During this process, several problems were encountered such as computer malfunctions, the lack of hardware, power outages, and environmental incompatibilities. The students helped each other in such situations and solved the problems by sharing knowledge and equipment. Before starting the application, digital storytelling and photo story program were introduced to the students, sample digital stories were created together with the teacher, and students were provided to develop sample digital storytelling. The students created digital stories using the Microsoft Photo Story program.

## **Data Collection Tools**

The data of the study were collected through Personal Information Form, the Attitude Scale for Human Rights, Citizenship, and Democracy course, Entrepreneurship Trends Inventory, and Diaries.

*Personal Information Form:* In the personal information form developed by the researchers, there are items about gender, internet connection and computer ownership at home, educational status of parents, and occupation information.

Human Rights, Citizenship, and Democracy Course Attitude Scale: Attitude Scale towards Citizenship and Democracy Education Course, developed by Bozbek and Demir (2014), was rearranged as "Human Rights, Citizenship, and Democracy Course Attitude Scale". The scale was presented to three experts in the field to be examined in terms of its suitability for primary school students. The scale was then arranged in a way that primary school students could understand without deteriorating the main feature of the items by taking the opinions of two classroom teachers. Additionally, a pilot study was conducted on 20 fourth-grade primary school students who were not included in the study group, and it was determined that the scale could be used for research. Since the name of the course was the Citizenship and Democracy course in the previous years when the scale was prepared, the name of the scale is referred to as the Citizenship Course Attitude Scale. However, since the name of this course in primary school was Human Rights, Citizenship, and Democracy, the name of the scale was used as "Human Rights, Citizenship, and Democracy Course Attitude Scale" in this study. The exploratory factor analysis (EFA) was carried out to determine the factor structure of the scale, and the confirmatory factor analysis (CFA) was used to test the construct validity. Additionally, other necessary validity analyses were performed. Furthermore, item-test score correlations, test-retest correlations, and Cronbach alpha internal consistency coefficient were all identified. A t-test was performed to test whether the items distinguish between upper and lower 27% groups. The results of the CFA which was used to confirm the two-factor pattern with 16 items of the scale indicated that the rate of X 2 to the degree of freedom is 2.66. given that all fit values are in the range of acceptability a four-factor of the scale can be employed which is valid. The Cronbach alpha reliability coefficient for the sub-dimensions and the scale as a whole is reported to be 0.918 (Bozbek & Demir, 2014). There are two dimensions in the five-point likert type scale, namely liking and interest, with 16 items. The Cronbach alpha coefficient for the scale as a whole was found to be 0.844 in the study. The Cronbach Alpha reliability coefficient was calculated as 0.78 for the interest dimension and 0.90 for the liking dimension.

Entrepreneurship Tendencies Inventory for Children (ETIC): The entrepreneurship trends inventory was developed by Yurtseven and Ergün (2018). It was used to reveal the entrepreneurship trends among the participants of the study. An EFA was employed to analyse the construct validity of the inventory. The results of the Kaiser-Meyer-Olkin analysis which was used to identify the appropriateness of the data for the factor analysis produced the value of .906, and the result of the Bartlett Test was found to be significant, .00 (p<.05). Subsequently, the principal components analysis and varimax vertical rotation were performed which produced a four-factor inventory with 24 items. The Cronbach Alpha coefficient was found to be .89 for the inventory as a whole. The Pearson correlation analysis, the itemtotal, and item-the others correlations were also calculated, and the results of these analyses were found to be significant (p<.001) (Yurtseven & Ergün, 2018). The entrepreneurship trends inventory used in the study has four factors (being successful, problem solving, innovativeness, and self-confidence) and is consisted of 24 items. The Cronbach alpha coefficient was found to be 0.903 for the inventory as a whole. The Cronbach alpha reliability coefficient was calculated as 0.92 for the being successful dimension, 0.93 for the problem solving dimension, 0.88 for the innovativeness dimension, and 0.88 for the self-confidence dimension.

Student and Researcher Diaries: During the four-week practice period in the experimental group, the students kept diaries in which they explained their feelings and thoughts about the lesson each week during the practice. These diaries consist of a semi-structured diary form developed by the researchers. Expert opinion was taken in the preparation of the problems in the diaries. Care was taken to prepare the questions in the diaries in a way that would not lead the students and affect the results. From students in diary form: "What did you do while creating this digital story? How did you feel while creating this digital story? What did you learn from this digital story? Were there any places where you had difficulty creating this digital story? What were these? ". They were asked to write about these topics. It is aimed that students' thoughts about the process would be a basis for the quantitative findings of the research. Students were not guided while writing the diaries. In the first week of the research process, diaries were introduced. During the four weeks, which is the application process in which digital storytelling was developed the diaries were written and collected by the students at the end of each course. The first researcher also kept a diary after each application in the experimental group.

#### Data Collection

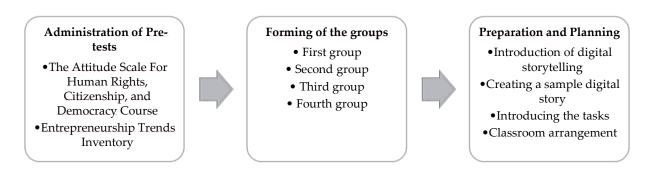
The research started with the permission of Afyon Kocatepe University, Scientific Research and Publication Ethics Committee, dated 11.01.2019 and numbered 2019/06. Then necessary permissions were obtained from Afyonkarahisar Directorate of National Education (13.02.2019). Then the necessary permissions were taken from the provincial national education directorate. It was followed by the permissions of the parents through a consent form which informed them about the aims of the study and about the confidentiality of the data. The scales used to collect quantitative data were administered to the students in the experimental and control groups as a pre-test and a post-test in one lesson hour (40 minutes). The qualitative data of the study were collected through student diaries in which they expressed their feelings and thoughts about the lesson during the four-week implementation in the experimental group where digital storytelling activities were used.

#### Implementation

In this section, the information about the data collection and implementation process of the research is presented under three headings: pre-experiment process, the experimental process, and post-experiment process.

# *Pre-experiment process*

The participants were assigned to the experiment and control groups randomly. As stated earlier, there were 22 students in the experiment group who were attending 4/D class and there were another 22 students in the control group who were attending 4/A class. All students in the classes participated in the application. In other words, the total number of students in these classes is 44. The scales were applied to both groups as a pre-test. After the scales were applied, 22 students in the experimental class were divided into four groups consisting of two groups of six and two groups of five. Digital storytelling was introduced to the groups, a sample digital story was created, assignments in the groups were planned, and classroom arrangements were made. The pre-experimental process of the research is given in Figure 1.



**Figure 1.** Pre-Experiment Process

# Experimental process

The experimental process lasted for six weeks. At the first week, the preparations were completed, and at the sixth week, post-tests were administered. The experiment was carried out at the  $2^{nd}$ ,  $3^{rd}$ ,  $4^{th}$ , and  $5^{th}$  weeks. This process is summarized in Table 1.

**Table 1.** Experimental Process

Weeks	Participant groups	Outcomes	Procedure
Week 1	Experiment group	Introduction	Administration of pre-tests
(27.02.2019)			Forming of the groups
			Introduction of digital
			storytelling
			Introducing the diaries
	Control group		Administration of pre-tests
Week 2	Experiment group	Students explain the reasons for	Students' digital story activities
(7.03.2019)		interpersonal problems.	Keeping the diaries
	Control group		Methods and techniques in the
			2018 Human Rights, Citizenship,
			and Democracy Curriculum
Week 3	Experiment group	Students make comparisons about	Students' digital story activities
(14.03.2019)		the situations which require and	Keeping the diaries
		do not require compromise.	
	Control group		Methods and techniques in the
			2018 Human Rights, Citizenship,
			and Democracy Curriculum
Week 4	Experiment group	Students look for the ways to	Students' digital story activities
(21.03.2019)		reduce or eliminate problems.	Keeping the diaries
	Control group		Methods and techniques in the
			2018 Human Rights, Citizenship,
			and Democracy Curriculum
Week 5	Experiment group	Students can make comparisons	Students' digital story activities
(28.03.2019)		about the results of problems and	Keeping the diaries
	C11	compromises using examples.	Mathada and tacket markets the
	Control group		Methods and techniques in the
			2018 Human Rights, Citizenship,
Week 6	The administration	of the Attitude Scale for Human Die	and Democracy Curriculum
		of the Attitude Scale for Human Rig	ins, Chizenship, and Democracy
(4.04.2019)	course as a post-test		
	The administration	of the Entrepreneurship Trends Inve	entory as a post-test

Figure 2 summarizes the process of the development of digital story by the students in the course.

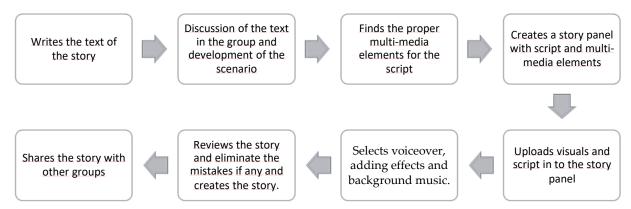


Figure 2. Process of the Development of Digital Story by the Students

The students in the experimental group developed a total of 16 digital stories, four digital stories by each group over a four-week period. After the administration of the pre-tests in the experimental group where digital narration was employed, the students were told that the course would be conducted with digital narration. After the digital storytelling presentation, a sample digital story was developed. The students were divided into four groups. Among them, two groups were consisted of five students and two groups of six students. The implementation process was explained to the groups. The seating arrangement of the classroom was made in such a way that group work could be done. One computer was given to each group. In the first week, the groups were asked to develop a digital story on any subject they wanted in order to learn the stages of digital narration. In the second week of the course, the Unit of Consensus was introduced. It was discussed in relation to the related outcome, "explains the reasons for disagreement between people", by giving examples from daily life, and then the groups were asked to develop digital stories suitable for this topic. Similar activities were repeated in the experimental group in the third, fourth, and fifth weeks. The digital stories created by the groups according to the gains during the experimental process are shown in Figure 3. The visuals of a few of the digital story samples prepared by the students are also presented (Figure 4).

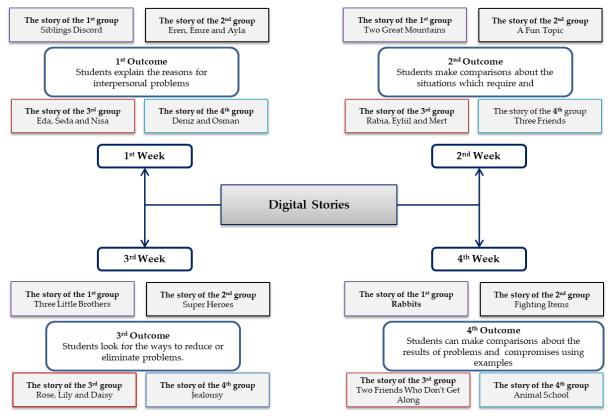


Figure 3. Digital Stories Created by Groups



Figure 4. Examples of Digital Stories Prepared by Students

# Post-experiment process

In the post-experiment process, the Attitude Scale for Human Rights, Citizenship, and Democracy course and the Entrepreneurship Trends Inventory for Children were administered to both participant groups.

#### Data Analysis

Since the mixed methods research was used in this study, quantitative data analysis was used for the first problem and sub-problem of the research, and qualitative data analysis was used for the second problem. A statistics program was used in the analysis of the quantitative data of the study. More specifically, descriptive statistics such as mean and standard deviation values were used. The analysis was carried out through the dependent and independent samples t-tests which are part of the inferential statistics. The assumptions of normality about the t-test were examined via the results of the Shapiro-Wilk test, the skewness, kurtosis coefficients and histograms. The Shapiro-Wilk test is reported to be useful for the samples not higher than 50 (Büyüköztürk, 2017). The kurtosis and skewness coefficients of the normally distributed data are assumed to be in the range between -2 and +2 (George

& Mallery, 2003). In the study, it was found that the following data were not normally distributed: the pre- and post-test scores for the experiment group on the liking dimension of the attitude scale and the pre-test scores for the experiment group on the innovativeness dimension of the entrepreneurship trends inventory (Tables 2 and 3). Table 2 presents the descriptive statistics about the pre- and post-test scores of the experiment and control groups on the Attitude Scale for Human Rights, Citizenship, and Democracy course.

**Table 2.** Descriptive Statistics about the Pre- and Post-Test Scores of the Experiment and Control Groups on the Attitude Scale for Human Rights, Citizenship, and Democracy Course

Attitude Scale	Dimension	Group	N	$\overline{X}$	SS	Kurtosis	Skewness	Variance
Attitude Scale	Interest	Control	22	32.04	5.42	.309	474	29.474
	Pre-test	Experiment	22	35.18	5.46	-001	-1.046	29.870
	Liking	Control	22	29.36	5.60	-1.306	1.566	31.385
	Pre-test	Experiment	22	30.54	5.60	-1.044	268	31.403
Attitude Scale	Interest	Control	22	30.13	6.15	.191	.886	37.933
	Post-test	Experiment	22	36.77	5.96	693	.118	35.613
	Liking	Control	22	25.31	6.60	238	-1.084	43.561
	Post-test	Experiment	22	30.63	7.41	-1.527	.698	54.909
Attitude Scale	Total Pre-test	Control	22	61.40	8.42	203	263	70.920
		Experiment	22	65.72	10.05	600	740	101.160
Attitude Scale	Total Post-test	Control	22	55.45	11.03	.294	228	121.879
		Experiment	22	67.40	12.12	-1.108	059	147.110

Table 3 presents the descriptive statistics about the pre- and post-test scores of the experiment and control groups on the entrepreneurship trends inventory.

**Table 3.** Descriptive Statistics about the Pre- and Post-Test Scores of the Experiment and Control Groups on the Entrepreneurship Trends Inventory

Entrepr	eneurship trends	Group	N	$\overline{X}$	SS	Kurtosis	Skewness	Variance
invento	ry/factors	Gloup	11	Λ	33	Kuitosis	Skewiless	variance
	Achievement	Control	22	29.90	3.95	527	761	15.610
<b>6</b>	Pre-test	Experiment	22	31.27	4.34	-1.127	013	18.874
ship ory	Problem Sol.	Control	22	23.81	4.81	819	.698	23.203
Entrepreneurship Trends Inventory	Pre-test	Experiment	22	24.72	4.47	202	-1.161	20.017
ene	Innovativeness	Control	22	23.81	4.71	516	361	22.251
epro ds ]	Pre-test	Experiment	22	25.77	4.67	-1.974	4.305	21.898
ren	Self-confidence	Control	22	18.09	5.23	689	518	27.420
日日	Pre-test	Experiment	22	20.86	4.35	-1.206	1.269	18.981
	Achievement	Control	22	29.90	3.95	527	761	15.610
<b>6</b>	Post-test	Experiment	22	31.27	4.34	-1.127	013	18.874
Entrepreneurship Trends Inventory	Problem Solving	Control	22	23.50	5.24	074	-1.524	27.500
ent	Post-test	Experiment	22	26.45	3.44	947	.258	11.879
ene	Innovativeness	Control	22	23.59	5.13	372	729	26.348
epro ds ]	Post-test	Experiment	22	26.22	3.66	820	104	13.422
ren	Self-confidence	Control	22	20.22	4.35	371	-1.217	18.946
	Post-test	Experiment	22	20.95	3.99	-1.419	1.742	15.950
Entrepre	eneurship trends	Control	22	95.63	15.98	340	824	255.671
invento	ry Total Pre-test	Experiment	22	102.63	14.86	768	205	220.909
Entrepre	eneurship trends	Control	22	96.40	16.88	249	-1.233	285.110
inventor	ry Total Post-test	Experiment	22	107.09	10.24	-1.018	.683	104.944

The diaries written by 22 students in the experimental group in semi-structured diary forms after four weeks of practice were analysed with descriptive analysis. The diaries were carefully read and scanned, and codes were created in accordance with the sub-dimensions of the scales. In this direction, codes suitable for the sub-themes of "Interest", "Liking", "Achievement", "Problem Solving", "Innovativeness", and "Self-Confidence" were determined. The codes of these sub-themes (categories) are presented in Table 14 in the findings section. The purpose of using diaries as a data collection tool is to reveal the participants' views on experiences spontaneously and to determine the meaning of the certain events to the participants (Bogdan & Biklen, 2007). The diary kept by the first author used to complement the data from the student diaries. To ensure consistency of the data, the student diaries were coded and compared separately by authors and an expert with qualitative research experience, and a percentage of agreement was derived. For this aim, the formula developed by Miles and Huberman (1994) was employed: "[Reliability = Agreement/ (Agreement + Disagreement) x 100]". The interrater agreement is found to be 0.80 indicating that there is a consistency among the interraters. Direct quotations were used to complement the data from the student diaries. Code names were used instead of students' real names in direct quotations.

## **Findings**

This section presents the findings in relation to the research questions.

# Quantitative Findings

Pre-Test Scores of the Control and Experiment Students on the Attitude Scale

Table 4 presents the results of the independent samples t-test about the pre-test attitude scores of the experiment and control students.

**Table 4.** Results of the Independent Samples T-Test about the Pre-Test Attitude Scores of the Experiment and Control Students

Dimensions	Groups	N	$\overline{X}$	SS	sd	t	p
Interest	Control	22	32.04	.429	642	.910	.063
	Experiment	22	35.18	.465			
Liking	Control	22	29.36	.602	689	700	.488
C .	Experiment	22	30.54	.603			
Attitude Scale	Control	22	61.41	.421	.796	.544	.130
Total	Experiment	22	65.72	.057			

p<.05

As can be seen in Table 4, there is no significant difference in the pre-test scores of both groups in regard to the dimension of interest [t(910)=.063, p>.05], the dimension of liking [t(700)=.488, p>.05], and total pre-test scores t(544)=.130, p>.05]. On the other hand, mean pre-test scores of the experiment students ( $\bar{X}$ =65.72, SS=0.57) is higher than those of the control students ( $\bar{X}$ =61.41, SS=.41). There is no statistically significant different between two groups in terms of the pre-test attitude scores [t(544)=.130, p>.05]. Based on this finding, it may be argued that the students in experiment and control groups are homogenous in regard to their attitudes towards the unit of "compromise".

Entrepreneurship Tendency Inventory Pre-Test Scores of the Experimental and Control Group Students
Table 5 presents the results of the independent sample t-test which are about the pre-test scores
of the experiment and control students on the entrepreneurship tendency inventory.

**Table 5.** Results of the Independent Sample T-Test Which Is About the Pre-Test Scores of the Experiment and Control Students on the Entrepreneurship Tendency Inventory

Factors	Groups	N	$\overline{\pmb{X}}$	SS	sd	t	p
Achievement	Control	22	29.90	.951	252	000	202
Achievement	Experiment	22	31.27	.344	.252	.089	.282
Dualslans aslada a	Control	22	23.81	.817	401	C40	F20
Problem solving	Experiment	22	24.72	.474	.401	649	.520
To a continuo	Control	22	23.81	.717	417	200	175
Innovativeness	Experiment	22	25.77	.679	.416	.380	.175
C-1( C-1	Control	22	18.09	.236	450	000	062
Self-confidence	Experiment	22	20.86	.356	.452	.909	.063
Entrepreneurship	Control	22	95.63	.989	<b>654</b>	<b>504</b>	140
Tendency Inventory Total	Experiment	22	102.63	.863	.654	.504	140

p<.05

As can be seen in Table 5, there is no statistically significant difference in terms of pre-test scores of the experiment and control students on the entrepreneurship tendency inventory, including the dimensions of achievement [t(089)=.282, p>.05], problem solving [t(649)=.520, p>.05], innovativeness [t(380)=.175, p>.05], self-confidence [t(909)=.063, p>.05], and the total score [t(.504)=.140, p>.05]. Based on this finding, it may be argued that the students in experiment and control groups are homogenous in regard to their entrepreneurship tendency in regard to the unit of "compromise".

Post-Test Scores of the Control and Experiment Students on the Attitude Scale

Table 6 presents the results of the independent samples t-test about the post-test attitude scores of the experiment and control students.

**Table 6.** Results of the Independent Samples T-Test about the Post-Test Attitude Scores of the Experiment and Control Students

Dimensions	Groups	N	$ar{X}$	SS	sd	t	p
Interest	Control	22	30.13	.158	.828	.630	.001*
	Experiment	22	36.77	.967	.020	.050	.001
Liking	Control	22	25.31	.600	.115	.514	.016*
Liking	Experiment	22	30.63	.410	.113	.314	.016
Attitude Scale	Control	22	55.45	.039	.496	.419	.001*
Total	Experiment	22	67.40	.128	.490	.419	.001

<sup>\*</sup>p<.05

Table 6 shows that mean post-test scores of the experiment students on the attitude scale ( $\bar{X}$  =67.40, SS=.128) is higher than those of the control students ( $\bar{X}$  =55.45, SS=0.39). It is found that this difference is statistically significant [t(.419)=.001, \*p<.05]. The post-test scores of the experiment students are significantly higher in the dimensions of interest [t(.630)=.001, \*p<.05] and liking [t(.514)=.016, \*p<.05]. It is possible to argue that digital storytelling is a more effective method in terms of improving the student attitudes towards the lesson related to the compromise unit in contrast to the methods and techniques included in the education program which were employed in the control group.

Entrepreneurship Tendency Inventory Post-Test Scores of the Experimental and Control Group Students
Table 7 presents the results of the independent sample t-test which are about the post-test scores
of the experiment and control students on the entrepreneurship tendency inventory.

**Table 7.** Results of the Independent Sample T-Test Which Are about the Post-Test Scores of the Experiment and Control Students on the Entrepreneurship Tendency Inventory

Factors	Groups	N	$\overline{\pmb{X}}$	SS	sd	t	p
A alai arrama am t	Control	22	29.09	.317	264	450	001*
Achievement	Experiment	22	33.45	.631	.264	.450	.001*
Dualslans as ladin a	Control	22	23.50	.244	227	200	022*
Problem solving	Experiment	22	26.45	.446	.337	.208	.033*
T.,	Control	22	23.59	.133	244	.961	.057*
Innovativeness	Experiment	22	26.22	.663	.344	.961	
Calf and domas	Control	22	20.22	.352	250	E 77	F.(7
Self-confidence	Experiment	22	20.95	.993	.259	.577	.567
Entrepreneurship	Control	22	96.40	.885	F27	210	01.6*
Tendency Inventory Total	Experiment	22	107.09	.244	.537	.210	.016*

<sup>\*</sup>p<.05

Table 7 indicates that the mean post-test scores of the experiment students ( $\bar{X}$ =107.09, SS=.244) is higher than those of the control students ( $\bar{X}$  =96.40, SS=.885). It is found that this difference is statistically significant [t(.210)=.016, \*p<.05]. More specifically, the post-test scores of the experiment students are higher in the dimensions of achievement [t(.630)=.001, \*p<.05], problem solving [t(.208)=.033, \*p<.05], and innovativeness [t(.961)=.057, \*p<.05]. However, the mean post-test scores of the experiment students and control students do not significantly differ in regard to the dimension of self-confidence. Therefore, it is possible to argue that digital storytelling is a more effective method in terms of improving the participants' entrepreneurship tendency related to the compromise unit except for the dimension of self-confidence in contrast to the methods and techniques included in the education program which were employed in the control group.

Pre-Test and Post-Test Attitude Scores of the Experiment Subjects

In the analysis of the data related to the pre-test and post-test attitude scores of the experimental students, the dependent sample t-test which is a part of the parametric tests was employed in relation to the interest dimension and the total score, and the Wilcoxon Signed Ranks Test which is one of the non-parametric tests was used for the liking dimension. Table 8 and Table 9 show the results of the analysis.

**Table 8.** Results of the Dependent Sample T-Test on the Pre- and Post-Test Scores of the Experiment Students

Dimensions	Tests	N	$\overline{X}$	SS	sd	t	p
Interest	Pre-test	22	35.18	.465	.049	E1E	.145
	Post-test	22	36.77	.967	.049	.515	.143

Table 9. Results of the Wilcoxon Signed Rank Test Results

Dimensions	Post-test-Pre-test		N	Mean rank	Rank sum	Z	p
	Negative rank		6a	6.92	41.50	280	
I :1.i.e.	Positive rank		7 <sup>b</sup>				.779
Liking	Equal	9c		7.02	49.50		.779
	Total	22					
Attitude Scale	Pre-test	22	65.72	.057	722	076	240
Total	Post-test	22	67.40	.128	.722	976	.340

<sup>\*</sup>p<.05

As can be seen in Table 8 and Table 9, the pre-test attitude scores of the experiment subjects ( $\bar{X}$  =65.72, SD=.057) are lower than those of their post-test scores ( $\bar{X}$  =67.40, SD=.128). However, this difference is not significant [t(.976)=.340, p>.05]. The difference is also found not to be significant for the dimensions of interest [t(.630)=.145, p>.05] and liking [z=(280)=.779, p>.05]. Therefore, it is not possible to argue that the digital storytelling activities are not an effective way to improve the student' attitudes towards the compromise unit.

Pre-Test and Post-Test Scores of the Experiment Subjects on the Entrepreneurship Tendency Inventory In order to compare the pre- and post-test scores of the experiment subjects on the achievement dimension of the Entrepreneurship Tendency Inventory, the Wilcoxon Signed Ranks Test was employed. For the comparison of the pre- and post-test scores of the experiment subjects on the dimensions of problem solving, innovativeness, and self-confidence on the Inventory, the t-test was employed. Table 10 and Table 11 present the results of the analyses.

Table 10. Results of the Wilcoxon Signed Ranks Test

Factors	Post-test-Pre-test	N	Mean rank	Rank sum	Z	p
	Negative rank	1a	4.00	4.00	-3,219 <sup>b</sup>	
A -1-1	Positive rank	$14^{b}$				001*
Achievement	Equal	$7^{c}$	8.29	116.00		.001*
	Total	22				

**Table 11.** Results of the Dependent Sample T-Test on the Pre- and Post-Test Scores of the Experiment Students

Factors	Tests	N	$\overline{X}$	SS	sd	t	р
Problem solving	Pre-test	22	24.72	.474	010	107	0.45%
	Post-test	22	26.45	.446	.819	.107	.047*
Tomorrations	Pre-test	22	25.77	.679	724	(10	E4E
Innovativeness	Post-test	22	26.22	.663	.734	.619	.545
Self-confidence	Pre-test	22	20.86	.356	.513	.177	0/1
Sen-confidence	Post-test	22	20.95	.993	.313	.1//	.861
Entrepreneurship	Pre-test	22	102.63	.863	404	171	005*
Tendency Inventory Total	Post-test	22	107.09	.244	.404	.171	.005*

<sup>\*</sup>p<.05

Table 10 and 11 shows that the pre- and post-test scores of the experiment students on the entrepreneurship tendency inventory significantly differ in terms of achievement, problem solving, and the inventory as a whole (\*p<0.05). However, the mean post-test scores of the experiment subjects ( $\bar{X}$ =107.09, SS=.244) are much higher than their mean pre-test scores ( $\bar{X}$ =102.63, SS=.863). This difference is found to be statistically significant [t(.171)=.005, \*p<.05]. This significance is also valid for the post-test score for the dimension of achievement [z=(321)=.001, \*p<.05] and problem solving [t(.107)=.047, \*p<.05]. Based on this finding, it can be said that the digital storytelling activities used in the experiment group

is a more effective method in terms of entrepreneurship tendencies except for the innovativeness and self-confidence factors related to the compromise unit.

Pre-Test and Post-Test Attitude Scores of the Control Students

The results of the dependent sample t-test which was performed on the pre- and post-test attitude scores of the control students are given in Table 12.

**Table 12.** Results of the Dependent Sample T-Test on the Pre- and Post-Test Scores of the Control Students on the Attitude Scale

Factors	Tests	N	$\overline{X}$	SS	sd	t	р
Interest	Pre-test	22	32.04	.429	.182	.615	.121
	Post-test	22	30.13	.158	.162	.613	.121
Liking	Pre-test	22	29.36	.602	001	0.41	001*
	Post-test	22	25.31	.600	.001	041	.001*
Attitude Scale	Pre-test	22	61.40	.421	705	450	000*
Total	Post-test	22	55.45	.039	725	452	.002*

<sup>\*</sup>p<0.05

Table 12 shows that the mean pre-test scores of the control subjects on the attitude scale ( $\bar{X}$ =61.40, SS=.421) is higher than their post-test scores ( $\bar{X}$ =55.45, SS=.039). This difference is found to be statistically significant [t(.452)=.002, \*p<.05]. The same statistically significant difference was found to be for the dimension of liking [t(.041)=.001, \*p<.05]. Therefore, it can be argued that the teaching methods and techniques used in the control group are not very influential in improving the participants' attitudes towards the compromise unit.

*Pre- and Post-Test Scores of the Control Students on the Entrepreneurship Tendency Inventory*Table 13 presents the results of the dependent sample t-test on the pre- and post-test scores of the control students on the entrepreneurship tendency inventory.

**Table 13.** Results of the Dependent Sample T-Test on the Pre- and Post-Test Scores of the Control Students on the Entrepreneurship Tendency Inventory

Factors	Tests	N	$\overline{\overline{X}}$	SS	sd	t	р
Achievement	Pre-test	22	29.90	.951	.901	.908	.374
	Post-test	22	29.09	.317			
Problem solving	Pre-test	22	23.81	.817	.254	.254	.802
	Post-test	22	23.50	.244			
Innovativeness	Pre-test	22	23.81	.717	.842	.270	.790
	Post-test	22	23.59	.133			
Self-confidence	Pre-test	22	18.09	.236	.429	.494	.150
	Post-test	22	20.22	.352			
Entrepreneurship	Pre-test	22	95.63	.989	202 241	241	812
Tendency Inventory Total	Post-test	22	96.40	.885	.203	.241	

<sup>\*</sup>p<0.05

Table 13 shows that the mean pre-test scores of the control subjects ( $\bar{X}$ =95.63 SD=.989) is lower than their mean post-test scores ( $\bar{X}$ =96.40, SD=.885). However, this difference is found not to be significant [t(.241)=812, \*p>.05]. Therefore, it can be argued that the teaching methods and techniques used in the control group are not very influential in improving the entrepreneurship tendency of the participants.

#### Qualitative Findings

Views of the Experiment Groups about Digital Storytelling

Table 14 presents the views of the experiment students about digital storytelling.

Table 14. Views of the Experiment Students about Digital Storytelling

Theme	Sub-theme	Code		
	Achievement	Liking of the story		
		Doing research		
		Attempts		
		Acquisition of new information		
Entrepreneurship Tendency	Problem solving	Learning to compromise		
		Solving problems through task sharing		
		Learning to cooperate with others		
		Learning to share the learning		
		Using distinct ways to solve problems		
	Innovativeness	Developing common ideas		
		Improving imagination		
		Animal talk		
		Using historical pictures in the stories		
	Self-confidence	Feel like a journalist		
		Believing that the story is nice		
		Coping with excitement		
		Developing digital stories individually		
Attitude	Interest	Waiting for the course curiously		
		Having interest in developing digital stories		
	Liking	Having fun and being happy in the course		
		Don't want the lesson to end		
		Liking to develop stories		

In their diaries, the students stated that they were not bored in the lesson, they had a lot of fun and learned the importance of consensus and agreement (We actually learned to compromise with this study. We learned what the consequences of disagreements are. I can solve my problems by consensus. (Student Diary, Tuğba, 22.03.2019), they were happy, and they learned how to develop stories and to find digital systems (sound recording, determining musical elements) and multimedia elements. It was observed that the students generally wrote the steps of the digital storytelling process they involved in the lesson and the concepts related to the content of the unit. Additionally, the students stated that they enjoyed writing down animals' talk in their digital stories "The stories about animals are more interesting because people's stories are not different. I'm more interested in animals talking and making friends (Student Diary, Kağan, 15.03.2019)", and that they felt themselves like journalists and scientists (Dear diary, I wrote the story. In my story, Ebrar was a teacher and I was the manager. Manager Ms. AZRA! Can you imagine? So I became the administrator of our story" (Student Diary, Azra, 08.03.2019). Some of the students stated that they had disagreements with their friends in the process of developing digital stories at first, and then they did not have any problems in the remaining stories because of the content of the subject and because they came up with common solutions. Several students mentioned in their diaries that they would develop digital stories in subjects that they do not understand or have difficulty to understand. Most of the students wrote in their diaries that they were eagerly awaiting the next activities related to this lesson. Many of the students mentioned that they liked the activities in the lesson, they did not want the lesson to end, and they loved developing digital stories. They reflected their feelings and thoughts in their diaries as follows:

The following statements were included in a student diary regarding the sub-theme of being successful in relation to the entrepreneurship tendency:

"Today, Eylül wrote the script and we voiced it. We used different visuals and made a research. We also tried to make our story more beautiful. We finished our story. I think our story was very beautiful (Student diary, Gizem, 08.03.2019)"

The following statements were included in the student diaries (Ali and Tuğba) regarding t the sub-theme of problem solving in relation to the entrepreneurship tendency:

"I was making the voiceovers badly because I read badly, but I will solve this problem by reading more books (Student diary, Ali, 15.03.2019)". "We actually learned to compromise with this study. We learned what the consequences of disagreements are. I can solve my problems by consensus (Student diary, Tuğba, 22.03.2019)".

The following statements were included in a student diary regarding the sub-theme of innovativeness in relation to the entrepreneurship tendency: "I think stories about animals are more interesting because people's talk is not different, but animals' talk and making friends are more interesting (Student diary Kağan, 15.03.2019."

An example from the student diaries regarding the self-confidence the sub-theme of the entrepreneurial tendency is as follows: "Dear diary, I am very happy today. Why? Because today we will develop a new digital story. We created our scenarios, I believe there is very little time left, our story will be the best" (Student diary, Tuğba, 08.03.2019).

It is stated in the diary of the author that the students developed digital stories with enthusiasm and that the digital stories developed by the students contributed to their skills such as problem solving and innovativeness:

"This week, children developed their last digital stories. Now children are much more familiar with using computers and creating stories. They formed their stories by solving the problems themselves without having much difficulty. Some students even became proficient in using computers and created their stories using different writing styles and colour." (Researcher diary, 29.03.2019).

An example from the student diaries regarding the interest of attitudes towards the course is as follows:

"I had a lot of fun while developing these digital stories. I had a great time with my friends. It was fun for me. So I did not want this work to end, I want to do it again because it is so fun." (Student diary, Gül, 08.03.2019).

The reports by Mert and Mehmet are as follows:

".. Today we made digital stories. Today was the best day. We were very excited. We wrote many articles and had very fun." (Student diary, Mert, 08.03.2019). "We made a beautiful digital story. It was very nice. We had fun. I was very excited while doing the voices and I was very happy. We will make our second story, it will be even more beautiful." (Student diary, Mehmet, 08.03.2019).

Regarding the liking dimension in terms of attitudes towards the lesson, the students stated in their diaries that they liked digital storytelling very much and that they were sorry for the completion of the activities:

".. I had a lot of fun and was happy while making the story. I love this lesson as it is digital stories, I wish it never ends." (Student diary, Gül, 15.03.2019). ".. Today we have developed our fourth story. But, we will not do it again. I am very sorry for this situation. I wish it never ended." (Student diary, Gizem 29.03.2019). "Today we have created our last story. I am very sorry for this situation. I will not forget our stories, I will watch them every day." (Student diary, Cemre, 29.03.2019).

The positive changes in the students' willingness to participate in courses and in their attitudes towards the course were stated in the researcher's diary as follows:

"The children generally developed their digital stories very enthusiastically. There were student interest and effort, and they were not previously interested in the course. They contributed to the activities. The reason for such positive changes may be that digital stories make the lesson fun and students are the active participants of the process by removing the boring lecture style." (Researcher's diary, 22.03.2019).

## **Discussion and Conclusion**

In this study, the effects of digital storytelling activities on students' entrepreneurial tendencies and attitudes towards the human rights, citizenship, and democracy course were examined. At the end of the study, the following findings were obtained: (1) In contrast to the methods and techniques covered in the education program of the course which were employed in the control group, digital storytelling activities used in the experimental group was more effective in terms of students' attitudes towards the lesson and their entrepreneurship tendencies, (2) the digital storytelling activities used in the control group was more effective in terms of improving the students' attitudes towards the lesson and their entrepreneurship tendencies, (3) the methods and techniques in the education program of the course that were used in the control group are ineffective in the improvement of the student' attitudes towards the lesson related to the compromise unit, but it is not clear whether storytelling activities were more effective or less effective methods in improving the students' entrepreneurship tendencies.

When the attitude scale post-test scores of the experimental and control group students were examined, it is found that there is a significant difference in favor of the experimental group in the overall scale, liking dimension and interest dimension. This finding suggests that digital storytelling activities used in the experimental group is more effective in terms of improving the student attitudes towards the lesson related to the compromise unit in contrast to the methods and techniques covered in the educational program of the course that were employed in the control group. This shows that the courses taught with digital storytelling are more effective than the courses taught according to the 2018 Human Rights, Citizenship, and Democracy Curriculum on the attitudes of the students towards the course. In parallel with this finding, Kahraman (2013) found that the courses taught based on digital stories increased the students' interest in the course by connecting the course with daily life, and positively affected the students' participation and motivation in the course. Yılmaz (2019) and Yürük (2015) also stated in their research that digital storytelling has a positive effect on students' having fun in the courses and their attitudes towards the course. Additionally, there are studies that positively affect students' attitudes towards the course of digital storytelling (Büyükcengiz, 2017; Kayalı, 2019; Yang & Wu, 2012; Yoon, 2013).

The comparison of the post-test scores of the experiment and control students on the entrepreneurial tendencies inventory shows that there is a significant difference in favor of the experiment students regard the whole score and the dimensions of achievement, problem solving, and innovativeness. Therefore, it can be argued that the digital storytelling activities employed in the experiment group are much more effective in improving the students' entrepreneurial tendencies in

contrast to the methods and techniques used in the control group. In parallel to this finding, Avci (2018) concludes that differentiated teaching practices significantly increase students' entrepreneurial skills. Çakır (2016) argues that question-based experimental activities structured in line with the problembased learning model are effective in increasing students' entrepreneurship and creativity skills. Barba-Sánchez, Atienza-Sahuquillo, McCracken, and Matlay (2016) conducted a study in which the situation analysis, material development, and implementation were used to improve entrepreneurship skills of primary school students, and it is found that the implementation improved the entrepreneurial skills of the students. Göçen (2014) concludes that digital stories contribute to students' study strategies. Hung et al. (2012) state that digital storytelling effectively increases students' problem solving skills. Yang and Wu (2012) found that digital storytelling has a positive effect on students' critical thinking and learning motivation. However, they stated that digital storytelling increased students' understanding of the course content, their willingness to explore and their critical thinking abilities. Chang (2017) states that students' collaboration skills improved through digital storytelling activities. Moberg (2014) concludes that teaching strategies and active-based teaching methods play an important role in the improvement of entrepreneurial skills. Green (2014) enabled students to make exercises by associating games, nature, artworks, and geography in order to improve their entrepreneurship skills, and it is concluded that students recognised many ways in which articles, various topics, and contexts are related to entrepreneurship.

As a result of digital storytelling in the research, although there is no significant difference between the pre-test and post-test scores of the experimental group students regarding the Attitude Scale, it was determined that the average of the scores of the experimental group students from the post-test was higher than the average of the scores they got from the pre-test. This suggests that digital stories contribute to students' positive attitudes towards the lesson. Additionally, when we look at the findings regarding the qualitative data obtained from the student diaries in the research, it is seen that there are expressions containing positive thoughts about digital storytelling. Some of these views are that they have a lot of fun and happiness while making the digital story, and they like this lesson very much because there are digital stories. In this context, when the quantitative findings related to the attitude scale and the qualitative findings obtained from the diaries for digital stories are examined, it is seen that the results obtained support each other. Similarly, various studies have shown that digital stories make lessons more fun and enjoyable and increase students' interest in lessons (Akgül, 2018; Baki, 2015; Balaman, 2016; Büyükcengiz, 2017; Demirer, 2013; Green, 2011; Hung et al., 2012; Karakoyun, 2014; Kırıkçı, Ciğerci, & Arıkan, 2020; Jakes & Brennan, 2005; Yang & Wu, 2012; Yoon, 2013).

As a result of the digital storytelling activities in the research, when the total score of the entrepreneurship tendencies inventory of the experimental group students and the pre-test and posttest scores of the achievement and problem solving sub-dimension were examined, it was seen that there was a significant difference in favor of the post-test mean scores. However, it was concluded that there was no significant difference in the sub-dimensions of innovativeness and self-confidence. However, it is seen that the post-test mean scores increased compared to the pre-test mean scores. Accordingly, it can be thought that digital storytelling applications positively affect students' entrepreneurial tendencies. Although entrepreneurship skill is an innate feature, it is a skill that can be developed through the active learning experiences. Active and experimental training methods, collaborative practices, and different educational resources can facilitate the development of this skill (Peschl, Deng, & Larson, 2020). In order to develop and support students' entrepreneurial skills, educators should use e-learning systems, methods, and technologies and make their presentations more engaging with videos, graphics, and different technological tools. The classroom environment should be interactive, expanded with out-of-classroom learning opportunities with problems that cannot be easily found with a simple online search (Bauman & Lucy, 2021). According to Gibb (1993), entrepreneurial skills are not fixed personality traits, but can be learned and developed through experience via learning processes linked to active experiences (as cited in Athayde, 2009).

In the study, it was concluded that there was no significant difference between the attitude scale pre-test and post-test scores of the students in the control group. Additionally, it was observed that there was a decrease in the post-test scores of the students compared to the pre-test. The decrease in post-test scores suggests that it is not sufficient on its own to develop an attitude towards the course in the Consensus unit of the 2018 Human Rights, Citizenship, and Democracy Curriculum. For this reason, it is important for teachers to use different methods, techniques and tools in achieving the objectives of the course. In the study, it was concluded that there was no significant difference between the entrepreneurship tendencies inventory pre-test and post-test scores of the students in the control group. Additionally, it was observed that there was a decrease in the post-test scores of the students compared to the pre-test. This result suggests that the 2018 Human Rights, Citizenship, and Democracy Curriculum did not contribute to the entrepreneurial tendencies of the students, but it even negatively affected them. Bacanak (2013) and Çelik, Gürpınar, Başer, and Erdoğan (2015) suggested the use of student-centered teaching methods and techniques (i.e., experiments, question-answer sessions, bowhead learning, educational games, brainstorming, invention, animation, drama, projects, interviews, classroom discussions, and so on) to improve the students' entrepreneurship skills. Barba-Sánchez et al. (2016) emphasize that educational practices requiring communication, cooperation, leadership activities and activities requiring responsibility are effective in improving the students' entrepreneurial skills. In order to achieve this, it is suggested that primary school education programs should be organized to develop these skills, and teachers should receive in-service training on this subject.

Examining the findings related to the qualitative data obtained from the student diaries in the research, the students stated that they were not bored during the course, had a lot of fun, were happy, and the process was fun, enjoyable, and far from being ordinary. Similarly, in studies where digital stories were used in courses, students stated that the educational process was more fun and enjoyable and their motivation increased with digital stories (Baki, 2015; Dayan, 2017; Green, 2011; Kieler, 2010; Jakes & Brennan, 2005; Yang & Wu, 2012; Yılmaz, 2019). For these reasons, the use of digital stories by teachers in disciplines where students' desire and motivation are low may contribute to attracting students' attention to the course.

# **Limitations and Suggestions**

In this research, the effects of digital storytelling activities on students' entrepreneurial tendencies and attitudes in the fourth grade Human Rights, Citizenship, and Democracy course were examined. In the light of the data obtained, studies can be conducted to examine the effect of digital storytelling on the competencies and other skills in the curriculum of this course.

In this research, "Microsoft Photo Story" program was used to develop digital stories. In the development of digital stories, instead of such programs, studies in which students prepare digital stories using Web 2.0 tools can be carried out.

This research is limited to 44 fourth-year students studying at a public primary school. Therefore, it was carried out with a small number of participants. It can be recommended to conduct studies that spread over a wide period of time with more schools and participants.

The application process in this research is limited to the digital storytelling method applied in the experimental group and the methods and techniques specified in the current curriculum applied to the control group. For this reason, studies can be conducted in which digital storytelling is compared with different learning methods.

The implementation was limited to four weeks for the "compromise unit" in the fourth grade Human Rights, Citizenship, and Democracy course. The effect of digital stories on different units of the course can be investigated.

Another limitation is that the data of the study were obtained through the attitude scale, entrepreneurship tendency inventory and student diaries. Students' attitudes towards the course and their entrepreneurial tendencies can be determined with different measurement tools.

#### References

- Akgül, G. (2018). The effects of creative drama use on success, attitude and scientified creativity during digital calling in science and technology course (Unpublished master's thesis). Mersin University, Mersin.
- Albarracín, D., Johnson, B. T., Zanna, M. P., & Kumkale, G. T. (2005). Attitudes: Introduction and scope. In D. Albarracin, B. T. Johnson, & M. P. Zanna (Eds.), *The handbook of attitudes* (pp. 3-19). New Jersey: Lawrence Erlbaum Associates Publishers.
- Aslan, S., & Aybek, B. (2018). An examination of classroom teachers' views regarding primary school 4th grade human rights, citizenship and democracy curriculum. *Gazi University Journal of Gazi Educational Faculty*, 38(1), 233-262.
- Athayde, R. (2009). Measuring enterprise potential in young people. *Entrepreneurship Theory and Practice*, 33(2), 481-500.
- Avcı, Ö. (2018). The effect of differential teaching applications on students' entrepreneurship skills and academic success (Unpublished master's thesis). Kırıkkale University, Kırıkkale.
- Aydın, E., & Öner, G. (2016). Investigation of entrepreneurship levels of social studies and classroom teacher candidates. *Kırşehir Journal of Education Faculty*, 17(3), 497-515.
- Bacanak, A. (2013). Teachers' views about science and technology lesson effects on the development of students' entrepreneurship skills. *Educational Sciences: Theory and Practice*, 13(1), 609-629.
- Baki, Y. (2015). *The effect of digital stories on the sixth grade students' writing process* (Unpublished doctoral dissertation). Atatürk University, Erzurum.
- Balaman, F. (2016). The effect of digital storytelling method upon the democratic value judgement of university students: Sample of Mustafa Kemal University. *Current Research in Education*, 2(1), 42-52.
- Barba-Sánchez, V., Atienza-Sahuquillo, C., McCracken, M., & Matlay, H. (2016). The development of entrepreneurship at school: The Spanish experience. *Education & Training*, 58(7-8), 783-796.
- Bartulović, P., & Novosel, D. (2014). Entrepreneurial competencies in elementary schools. *Obrazovanje za poduzetništvo E4E*, 4(1), 83-87. Retrieved from https://hrcak.srce.hr/134605
- Bauman A., & Lucy, C. (2021). Enhancing entrepreneurial education: Developing competencies for success. *The International Journal of Management Education*, 19(1), 100293. doi:10.1016/j.ijme.2019.03.005
- Bogdan, R. C., & Biklen, S. K. (2007). *Qualitative research for education: An introduction to theory and methods* (5<sup>th</sup> ed.). Boston: Allyn & Bacon.
- Bozbek, M., & Demir, S. B. (2014). Attitude scale towards citizenship and democracy education lesson: Development, validity and reliability study. *Dicle University Journal of Ziya Gökalp Education Faculty*, 23, 323-351.
- Bozkurt, Ö., & Erdurur, K. (2013). Effect of entrepreneurs personality characteristics in entrepreneurial tendency: A study on potential entrepreneurs. *Journal of Entrepreneurship and Development*, 8(2), 57-78.
- Brace, A. M., Finkelstein, B. N., & Sealy, D. A. (2015). Evaluating the effectiveness of creating digital stories in a college classroom to promote a healthy food system. *Food Studies*, *6*(1), 15-26.
- Büyükcengiz, M. (2017). The effect of digital storytelling method on elementary school students 'academic successes, scientific process skills, and attitudes towards the course in the context of science course (Unpublished master's thesis). Akdeniz University, Antalya.
- Büyüköztürk, Ş. (2017). Handbook of data analysis for social sciences (23th ed.). Ankara: Pegem Academy.
- Büyükyılmaz, O., Karakaya, A., & Yıldıran, C. (2015). The differences between entrepreneurial tendency of individuals in terms of demographic characteristics that participated in the entrepreneurship. *Journal of Entrepreneurship and Development*, 10(2), 105-125.

- Chang, W. N. (2017). The effects of digital storytelling on student achievement, social presence, and attitude in online collaborative learning environments. *Interactive Learning Environments*, 25(3), 412-427.
- Chung, S. K. (2007). Art education technology: Digital storytelling. Art Education, 60(2), 17-22.
- Creswell, J. W., & Plano-Clark, V. L. (2014). *Mixed method research: Design and execution* (A. Delice, Trans.). Ankara: Anı Publishing.
- Creswell, J. W., & Tashakkori, A. (2007). Developing publishable mixed methods manuscripts. *Journal of Mixed Methods Research*, 1(2), 107-111.
- Çakır, E. (2016). *Open-ended investigative-interrogative learning activities and its effect on entrepreneurship and creativity in science teaching* (Unpublished master's thesis). Kırıkkale University, Kırıkkale.
- Çelik, H., Gürpınar, C., Başer, N., & Erdoğan, S. (2015). Opinions of science teacher towards of students' creative thinking and entrepreneurship skills. The *Journal of International Education Science*, 2(4), 277-307.
- Çiftçi, M. (2019). The effects of digital stories on reading skills of primary education second grade students (Unpublished master's thesis). Aksaray University, Aksaray.
- Damar, A. (2015). The impact of entrepreneurship personality characteristics on entrepreneurship tendency of students: A comparative study at Sannio and Selcuk Universities (Unpublished master's thesis). Selçuk University, Konya.
- Dayan, G. (2017). *The dijital storytelling practices of primary school students in Turkish classes* (Unpublished master's thesis). Eskişehir Osmangazi University, Eskişehir.
- Demirbaş, İ. (2019). The effect of digital stories on the primary school students' listening comprehension and creative writing skills (Unpublished master's thesis). Ahi Evran University, Kırşehir.
- Demirer, V. (2013). *Use of e-storytelling in primary education and its effects* (Unpublished doctoral dissertation). Necmettin Erbakan University, Konya.
- Dorner, R., Grimm, P., & Abawi, D. F. (2002). Synergies between interactive training simulations and digital storytelling: A component-based framework. *Computers & Graphics*, 26, 45-55.
- Durdi, M., & Erdamar, G. (2020). Social studies teachers' and classroom teachers' views about the syllabus of the 4th grade human rights, citizenship, and democracy course. *Eğitim ve Toplum Araştırmaları Dergisi*, 7(1), 193-218.
- Erdoğan, E. (2021). The impact of digital storytelling on the academic achievement and democratic attitude of primary school students. *Educational Policy Analysis and Strategic Research*, 16(1), 427-448. doi:10.29329/epasr.2020.334.22
- Garcia, P. A., & Rossiter, M. (2010). Digital storytelling as narrative pedagogy. In D. Gibson & B. Dodge (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference* 2010 (pp. 1091- 1097). Chesapeake, VA: AACE.
- Garrety, C., & Schmidt, D. (2008). *The evolution of digital storytelling: From enhanced oral tradition to genres for education*. Waynesville: Association for the Advancement of Computing in Education (AACE).
- George, D., & Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference (4<sup>th</sup> ed.). Boston: Allyn & Bacon.
- Gider, B. (2019). The effect of individual and cooperative digital storytelling activities on the writing performance and language development of gifted students (Unpublished master's thesis). Kırklareli University, Kırklareli.
- Gimeno-Sanz, A. (2015). Digital storytelling as an innovative element in English for specific purposes. *Procedia-Social and Behavioral Sciences*, 178, 110-116. doi:10.1016/j.sbspro.2015.03.163
- Göçen, G. (2014). The effect of digital storytelling method on students' academic achievement and learning and study strategies (Unpublished master's thesis). Muğla Sıtkı Koçman University, Muğla.

- Green, K. M. (2014). Creative-thinking exercises for entrepreneurship class. *Journal of Business Cases and Applications*, 12, 1-10.
- Green, M. R. (2011). *Teaching the writing process through digital storytelling in pre-service education* (Unpublished doctoral dissertation). Texas A&M University, Texas.
- Güreşçi, E. (2014). An investigation over entrepreneurship tendency: An example, Ispir Hamza Polat vocational school. *Journal of Entrepreneurship and Development*, *9*(1), 23-38.
- Hastürk, E. (2019). Looking for the course of human rights, citizenship, and democracy from the aspect of social studies experts and teachers: Who should teach this course? (Unpublished master's thesis). Marmara University, İstanbul.
- Hung, C. M., Hwang, G. J., & Huang, I. (2012). A Project- based digital storytelling approach for improving students learning motivation, problem- solving competence and learning achievement. *Educational Technology and Society*, 15(4), 368-379.
- İşcan, Ö. F., & Kaygın, E. (2011). An investigation to determine the entrepreneurship tendency of university students as potential entrepreneurs. *Journal of Organization and Management Sciences*, 3(2), 275-286.
- Jakes, D. (2006). Standards-proof your digital storytelling efforts. Retrieved from https://www.techlearning.com/news/standardsproof-your-digital-storytelling-efforts
- Jakes, D. S., & Brennan, J. (2005). Capturing stories, capturing lives: An introduction to digital storytelling. Retrieved from http://www.jakesonline.org/dst\_techforum.pdf
- Kahraman, Ö. (2013). The effect of using teaching materials prepared by digital storytelling method at the engagement of learning cycle on physics course achievement and motivation level (Unpublished doctoral dissertation). Balıkesir University, Balıkesir.
- Karakoyun, F. (2014). Examining the views of elementary school students and preservice teachers about digital storytelling activities in online environment (Unpublished doctoral dissertation). Anadolu University, Eskişehir.
- Kayalı, D. (2019). An action research to develop design-oriented thinking skills of 6th grade students through digital narrative method (Unpublished master's thesis). Muğla Sıtkı Koçman University, Muğla.
- Kırıkçı, A. C., Ciğerci, F. M., & Arıkan, I. (2020). Use of digital storytelling in the 4th grade social studies course. *International Online Journal of Educational Sciences*, 12(5), 96-113.
- Kieler, L. (2010). A reflection: Trials in using digital storytelling effectively with the gifted. *Gifted Child Today*, 33(3), 48-52.
- Lambert, J. (2013). Digital storytelling: Capturing lives, creating community (4th ed). London: Routledge.
- McLellan, H. (2006). Digital storytelling in higher education. *Journal of Computing in Higher Education*, 19(1), 65-79.
- Meadows, D. (2003). Digital storytelling: Research-based practice in new media. *Visual Communication*, 2(2), 189-193.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2<sup>nd</sup> ed.). Thousand Oaks, CA: Sage.
- Ministry of National Education. (2018). *Human rights, citizenship and democracy course curriculum, primary school 4th class*. Ankara: MEB.
- Moberg, K. (2014). Two approaches to entrepreneurship education: The different effects of education for and through entrepreneurship at the lower secondary level. *The International Journal of Management Education*, 12(3), 512-528.
- Nuhoğlu, H. (2008). The development of an attitude scale for science and technology course. *Elementary Education Online*, 7(3), 627-639.

- Patir, S., & Karahan, M. (2010). A field research on entrepreneurship education and determination of the entrepreneurship profiles of university students. *Business and Economics Research Journal*, 1(2), 27-44.
- Peschl, H., Deng C., & Larson, N. (2020). Entrepreneurial thinking: A signature pedagogy for an uncertain 21st century, *The International Journal of Management Education*, 19(1), 100427. doi:10.1016/j.ijme.2020.100427
- Robin, B. (2006). The educational uses of digital storytelling. In C. Crawford, R. Carlsen, K. McFerrin, J. Price, R. Weber, & D. Willis (Eds.), *Proceedings of society for information technology & teacher education international conference* (pp. 709-716). Orlando, Florida, USA: Association for the Advancement of Computing in Education (AACE).
- Rule, L. (2010). Digital storytelling: Never has storytelling been so easy or so powerful. *Knowledge Quest*, 38(4), 56-58.
- Sağlam, H. İ., & Hayal, M. A. (2015). The views of class teachers on the incorporation of human rights, citizenship, and democracy courses in the curriculum of fourth graders. *Abant İzzet Baysal University Journal of the Faculty of Education*, 15(1), 207-217.
- Sandaran, S. C., & Kia, L. C. (2013). The use of digital stories for listening comprehension among primary Chinese medium school pupils: Aome preliminary findings. *Jurnal Teknologi*, 65(2), 125-131.
- Sarıtaş, A., & Duran, G. (2017). A research to determine the entrepreneurial tendency of university students. *Journal of Social Sciences of Mus Alparslan University*, 5(1), 147-165.
- Sawyer, C. B., & Willis, J. M. (2011). Introducing digital storytelling to influence the behavior of children and adolescents. *Journal of Creativity in Mental Health*, 6(4), 274-283.
- Sever, T. (2014). *An investigation into the impact of digital storytelling on the motivation level of students master of academic thesis* (Unpublished master's thesis). Çanakkale Onsekiz Mart University, Çanakkale.
- Tetik, T. (2020). *Digital storytelling activities in supporting writing skills of gifted primary school students: An action research* (Unpublished doctoral dissertation). Mehmet Akif Ersoy University, Burdur.
- Titus, U. B. (2012). Digital storytelling in a science curriculum: The process of digital storytelling to help the needs of fourth grade students understand the concepts of food chains (Unpublished master's thesis). University of Hofstra, New York.
- Toprak, E., & Demir, S. B. (2017). Evaluation of the problems encountered in 4 th grade "Human Rights, Citizenship And Democracy" course by form teacher. *Abant İzzet Baysal University Journal of the Faculty of Education*, 17(4), 2160-2179.
- Toprak, F. Ö. (2019). The effect of interactive historical vignettes prepared by digital storytelling on students' views on scientific knowledge (Unpublished master's thesis). Sivas Cumhuriyet University, Sivas.
- Ünlü, B. (2018). The effect of digital stories based social studies courses on students' achievement, locus of control and critical thinking skills (Unpublished doctoral dissertation). Recep Tayyip Erdogan University, Rize.
- Ünlü, B., & Yangın, S. (2018). Effect of social studies course supported with digital stories on critical thinking skills of students. *Recep Tayyip Erdogan University Journal of Social Sciences*, 6(11), 1-29.
- Vaidya, S. (2007). Promoting entrepreneurial attitudes and skills through elementary education to meet the future professional needs: An action research project. Retrieved from http://hdl.handle.net/123456789/616
- Vogradova, P., Linville, H. A., & Bickel, B. (2011). Listen to my story and you will know me: Digital stories as student-centered collaborative projects. *TESOL Journal*, 2(2), 173-202.
- Wang, S., & Zhan, H. (2010). Enhancing teaching and learning with digital storytelling. *International Journal of Information and Communication Technology Education*, 6(2), 76-87. doi:10.4018/jicte.2010040107

- Wu, J., & Chen, D. T. V. (2020). A systematic review of educational digital storytelling. *Computers & Education 147*, 1-16. doi:10.1016/j.compedu.2019.103786
- Xu, Y., Park, H., & Baek, Y. (2011). A new approach toward digital storytelling: An activity focused on writing self-efficacy in a virtual learning environment. *Educational Technology & Society, 14*(4), 181-191.
- Yang, Y.-T. C., & Wu, W.-C. I. (2012). Digital storytelling for enhancing student academic achievement, critical thinking, and learning motivation. A yearlong experimental study. *Computers & Education*, 59(2), 339-352.
- Yılmaz, M. (2019). The effect of digital storytelling activities that performed with program visualization tool on creative problem solving skill and attitude towards computer (Unpublished master's thesis). Atatürk University, Erzurum.
- Yoon, T. (2013). Are you digitized? Ways to provide motivation for ELL's using digital storytelling. *International Journal of Research Studies in Educational Technology*, 2(1), 25-34.
- Yurtseven, R., & Ergün M. (2018). Development of entrepreneurship tendencies inventory for children (ETIC). *Journal of Theoretical Educational Science*, *11*(5), 125-145.
- Yürük, S. E. (2015). *The effect of digital story based values education on students' attitudes and value acquisiton* (Unpublished doctoral dissertation). Firat University, Elazığ.