

USE OF DIGITAL STORIES IN SOCIAL STUDIES COURSE TO EXAMINE STUDENTS' VALUE ACQUISITION

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ABSTRACT

The rapid technological advancements greatly influence the interests and needs of both individuals and societies. Given today's students' keen interest in technology, the use of various technological tools and applications in educational environments has become inevitable. In this context, this research aims to examine students' values through student-prepared digital stories in the Social Studies course. The study group was determined using convenience and purposive sampling. Initially, easily accessible schools in Afyonkarahisar were identified through convenience sampling, and one school was later selected purposively for data collection. The research was designed as an action research study to achieve this aim. Both quantitative and qualitative data collection tools were employed to gain a clear understanding of the process within the action research. Quantitative data were collected through a word association test, while qualitative data were gathered using moral dilemma forms, semi-structured interviews, and diaries from researchers, teachers, and students. The data were analyzed in three phases: pre-implementation, during implementation, and post-implementation. A pilot study was conducted, allowing the research process to gain an in-depth understanding of the process before developing action plans. The research was carried out on students in a school located in the city center of Afyonkarahisar, Türkiye. The research findings showed that digital stories prepared by students had an impact on their self-efficacy and values.

Keywords: *Digital stories, students, value.*

INTRODUCTION

The most important characteristic that distinguishes human beings from other creatures is that they are social beings and have a need to live together with other people for various reasons. Therefore, people spend their lives in a social process and internalize societal values through interactions, and create their own value system. Regardless of which society they live in, humans are surrounded by values and construct themselves through these values (Poyraz, 2007). Values are particularly fascinating in the field of social sciences and have multiple definitions, such as a belief about whether something is desirable or undesirable (Güngör, 2000) or a way of being or acting that a person or community idealizes (Doğan, 2004). Values can be used as criteria for understanding and defining individuals and societies. They have the power to direct individuals' behaviors and are important elements that ensure the continuity of societies and make them unique. Values are the most distinct characteristics that give meaning to culture and society and differentiate one society from another (Fitcher, 2001). Akbaş (2008) emphasizes the variable of society when defining values and states that values inform individuals about what is important and what is accepted in the society they live in. Based on this definition, it can be said that values are a criterion for individuals' behaviors, thoughts, and attitudes. By adopting values, individuals use them as a checklist to make decisions, to behave, or to develop an attitude. In this context, living

a peaceful and harmonious life with society is possible through the alignment of one's own values and the values of the society in which they live.

One of the purposes of education is to ensure that children and young people become good individuals and good citizens who are at peace with themselves and their surroundings (Hökelekli & Gündüz, 2007). The increase of moral problems worldwide, such as greed, rising crime rates, suicide, and drug use, especially among young people, has led to the prominence of values education. In line with these developments, there have been changes in the goals of schools, and it has been discussed which values should be given to children. In this respect, the importance of values education has emerged more prominently (Yel & Aladağ, 2009). To achieve the desired outcomes in values education, teachers have important responsibilities such as recognizing the importance of beliefs and values in shaping behavior, being aware of what students value and how they behave towards those values, designing lessons that promote active student participation, and providing opportunities for students to reflect and express their beliefs and values (Kim Suh & Traiger, 1999). In this regard, teachers must use more advanced teaching methods that will lead to the desired results, with traditional teaching methods in teaching values (Hossain & Marinova, 2004). Therefore, teachers should use methods and techniques that can respond to the interests and needs of 21st-century learners and attract them to the lesson during values education. Considering that today's children can access any information they need through technological tools and spend most of their time communicating through these tools, the integration of values education and technology has become an inevitable situation.

Storytelling has been one of the most important and primary ways of transferring knowledge from the beginning of civilization to the present day, thus becoming an important method of teaching and learning (Smeda et al., 2014). The value and power of storytelling are universal in all cultures (McDonald, 1997) and disciplines (Brown & Duguid, 2000; Sanchez & Blayer, 2002). There is evidence that pre-literate cultures relied on storytelling to educate their members, and that education through stories was highly successful during those times (Egan, 1989). Traditional stories used in education have also become digitized in line with the needs of the time, with the developments in our era. As a result, digital storytelling has rapidly become a popular learning tool in the context of education (Banaszewski, 2002; Mello, 2001; Salpeter, 2005). In recent years, various learning paradigms have been developed, each with its own learning methods, to improve teaching and learning practices, such as behaviorism, cognitivism, and constructivism.

The rapid popularity of digital storytelling as a strong pedagogical tool in education is mainly due to the fact that it is suitable for almost all age and grade levels (Robin, 2006). Digital storytelling can be widely used not only in primary, middle, and high school education, but also in social and cultural education types (Rossiter & Garcia, 2010). Constructivism is one of the most effective educational approaches developed in recent times. It stands out for its emphasis on the use of original contexts in learning, as well as its focus on the social dimension of learning, while overlapping in many ways with cognitive learning. Educational theories developed in the 20th century see teaching and learning as more than just the interaction or transmission of knowledge (Daniels, 2001; Dewey, 1986). These approaches consider learning in terms of teacher-student and student-student relationships, emphasizing that learning is acquired through experiences. Meaningful storytelling processes create opportunities for reflective dialogues, encourage collaborative efforts, foster a questioning mindset in individuals, and contribute to the structuring of knowledge (Alterio, 2002). In this respect, digital stories facilitate a constructivist approach to teaching and learning and combine digital media with innovative teaching and learning practices to create an effective tool. Digital stories that support individual, project-based, and collaborative learning in the teaching-learning process are seen as a tool that contributes to educational environments (Sadik, 2008; Sylvester & Greenidge, 2009; Tham, 2023; Yu & Wang, 2025). Therefore, digital stories are widely used and recommended as an educational tool throughout educational programs (Di Blas & Paolini, 2013; Ohler, 2013; Robin, 2008; Sadik, 2008).

When the literature is examined, digital stories can be used as supportive educational materials in many areas such as environmental education (Kordaki & Agelidou, 2010), human rights and social justice education (Gubrium & Scott, 2010), developing students' writing potential (Phillips, 2017), sustaining

the identities of indigenous students (Corbett, 2016), student achievement and attitudes (Hui, 2016; Kirilmazkaya, 2024), evaluating individual experiences (Buckner, 2015; Rosmar, 2014)), developing inquiry-based and critical learning (Korucu, 2020; Ünlü, 2018), supporting student motivation (Polater, 2019), social-emotional learning skills (Uslu, 2019), listening (Türe Köse, 2019), and writing skills (Dayan, 2017) and language learning (Belda-Medina, 2024; Peshevska & Koceska, 2024) and contributing to education environment (Kukul, 2024). In this way, digital stories help students develop different perspectives and interpret events from different angles. Digital stories help students explore the meaning of their experiences, value their experiences, and share them with others at different levels (Jakes & Brennan, 2005). Through digital stories, students who have the opportunity to share their work with their peers by creating their own digital stories can increase their emotional intelligence, collaboration, and social learning gains, and gain valuable experience in critiquing their own and other students' work. Thus, digital stories can serve as a bridge between existing knowledge and new material (McLellan, 2006) and facilitate students' acquisition of new knowledge and understanding of difficult materials.

THE PURPOSE OF THE STUDY

Digital stories, which have been gaining popularity in recent years, are an effective learning and teaching material that actively involves both students and teachers in the process. Based on the constructivist approach, which underpins contemporary education, the view that individuals can only fully understand the knowledge they create themselves is at the core. In this context, this study aims to examine the value development process of 5th grade students through the use of digital stories in Social Studies class. In line with this goal, the research problem was identified as "How does the use of digital stories in Social Studies class affect the value development levels of students?" and the following sub-problems were tried to be answered:

1. What is the cognitive level of students participating in the digital storytelling application process about values before the application?
2. What is the cognitive structure of students participating in the digital storytelling application process concerning values before the application?
3. What is the cognitive level of students participating in the digital storytelling application process concerning values after the application?
4. Is there a significant difference between the cognitive levels of students regarding values before and after the digital storytelling application process?
5. What is the cognitive structure of students participating in the digital storytelling application process concerning values after the application?
6. Is there a significant difference between the cognitive structures of students regarding values before and after the digital storytelling application process?

METHOD

In this section, the research model, study group, data collection tools and process, and data analysis are explained.

Research Model

In contrast to traditional experimental/scientific research with a generalization purpose, an action research model that focuses on specific situations and local solutions, and helps individuals find effective solutions to the problems they encounter in their daily lives, and increases their work efficiency was used in this research (Stringer, 2007). Action research provides researchers with the opportunity to evaluate their actions, find solutions to problems, and develop solutions to the problems encountered in the process in a design, implement, evaluate, and reflect cycle to bring them to the ideal state. Considering that values education will take place in a process and that this process needs to be examined in-depth, it was decided to use an action research design in this study that aims to evaluate the use of digital storytelling in value development as a teaching strategy, allowing the entire process to be

conducted in a way that allows the use of various data collection tools. The action research process plan used in the study is presented in Figure 1.

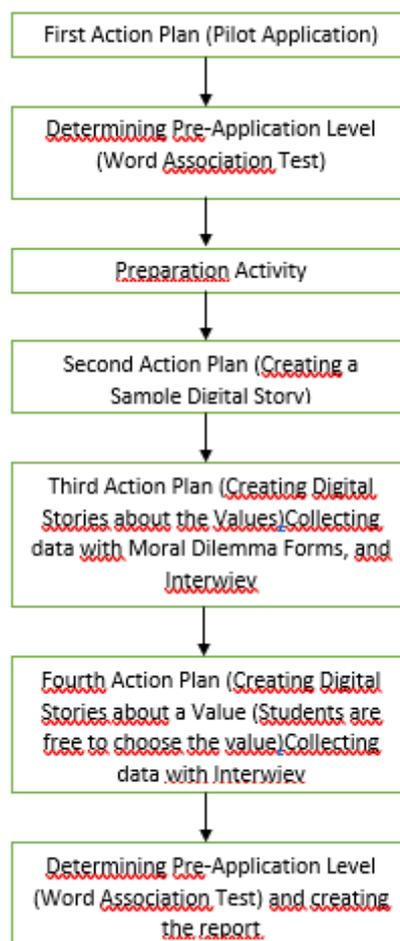


Figure 1. *The Action Research Process*

Study Group

Two different sampling methods were used in determining the study group for the research. Firstly, schools located in the central district of Afyonkarahisar and easily accessible to the researcher were identified using an appropriate sampling method. This sampling method aimed to save the researcher's time. At this stage, three schools were identified. The school where the study was conducted was then selected using a purposive sampling method from the schools identified by an appropriate sampling method. At this stage, the school administrator's perspective on conducting the study and the teacher's attitude towards the study played a major role. Due to the interest shown by the school administrators and the willingness of the teacher to implement the application during class hours, the research was conducted with 15 fifth-grade students (9 female, 6 male) in a middle school located in the center of Afyonkarahisar, Türkiye.

Data Collection

The purpose of action research is to understand certain elements of a class through a systematic process of collecting data (Johnson, 2015). The data collection methods used in action research are related to the characteristics of the research topic; therefore, action research can use both quantitative and qualitative data collection methods (Kock, 1997). In this research, based on the literature review, it was decided to use both quantitative and qualitative data collection tools to find the best answer to the research problem.

Quantitative Data Collection Tool

Word Association Test (WAT). As an alternative measurement tool, WAT is one of the oldest methods used to analyze students' cognitive structures and the connections between concepts within these structures (Bahar et al., 1999). In the created WAT, each relevant concept is listed ten times in a row on a single page to prevent chain answers, where participants write what comes to their mind as a response instead of what the prompted term brings to mind (Polat, 2013). Bahar, Johnstone, and Sutcliffe (1999) suggest that 30 seconds is enough time for answering in WATs. In the current study's WAT, a third column has been added, and students are asked to construct a sentence containing words that come to their mind regarding the prompted term in the third column.

Qualitative Data Collection Tool

Moral Dilemma Forms. Based on the dilemma situations presented in Kohlberg's theory of moral development, two dilemma situations were created for each value included in the research. The moral dilemma forms were used as a data collection tool in each action plan.

Data Analysis

In action research, data analysis refers to the systematic collection and summarization of all data collected throughout the research cycle (Johnson, 2014; Mills, 2003; cited in Ocak and Akkaş Baysal, 2019). Norton (2009) states that both qualitative and quantitative data can be analyzed using different data analysis methods in action research conducted in the field of education. The data obtained in the research were analyzed in three stages: before the implementation, during the implementation, and after the implementation. In this regard, the following steps were taken in the process of analyzing the data:

1. Pilot Implementation Data Analysis: In the pilot implementation carried out to test the research in a micro-environment and establish its basis, the data obtained from WAT were presented by summarizing the descriptive statistics method. The data obtained from the Researcher Diary, Teacher, and Student Interviews were also summarized and presented.
2. Pre-Implementation Quantitative Data Analysis: Two holistic rubrics were created for the evaluation of WAT. The first rubric was used to evaluate the terms written by the students of the study group regarding the relevant value, while the second rubric was used to evaluate the sentences they created using the related terms. The obtained data were analyzed using descriptive statistics.
3. In-Implementation Qualitative Data Analysis: Qualitative data collected through 'Student Interviews' and 'Moral Dilemma Forms' were presented through quotations and reflected the implementation process. During this process, the data obtained from the data collection tools was directly presented and interpreted by correlating it with the relevant themes, using descriptive analysis.
4. Post-Implementation Quantitative and Qualitative Data Analysis: At the end of the implementation, the data obtained from the quantitative data collection tool 'WAT' was analyzed descriptively, and the Wilcoxon Signed-Rank Test was used to analyze whether there was a statistically significant difference between pre- and post-implementation.

FINDINGS

This section presents the data collected through the research instruments used in the study, their analysis, and interpretations during the pre-implementation, implementation process, and post-implementation stages.

Results of the First Action Plan (Pilot Implementation)

Before implementing the main action plans during the research process, a pilot application was conducted with a total of 18 students in a randomly selected school in the central district of Afyonkarahisar during the second semester of the 2019-2020 academic year, based on the voluntariness

of teachers and students, for 5 weeks (6 sessions) from February 10, 2020, to March 11, 2020. The pilot application aimed to provide a basis for the researcher to make decisions about the action plans to be implemented, to provide a view on the process, to fully identify the problem situation, and to form a basis for the creation of action plans to be implemented throughout the process.

At the beginning of the pilot application, data were collected to determine the cognitive structures of the students regarding values. Daily journals were kept by the researcher after each application phase to identify the positive and negative aspects of the application. The teacher of the classroom where the pilot application was carried out also participated in the applications and observed them, and relevant opinions were verbally obtained from the teacher after each application. In addition, after each application, interviews were conducted with the students using a "pilot application survey" to identify the positive and negative aspects they experienced during the process.

In this context, the cognitive levels of the students who participated in the pilot application towards the relevant values obtained through WAT are given in Table 1.

Table 1. *Cognitive Level Results for Values of Students Participating in Pilot Implementation*

Values and Total	N	\bar{x}	ss
Respect	18	19.13	6.19
Responsibility	18	14.06	5.88
Saving	18	16.26	3.61
Being Scientific	18	16.93	8.57
Environmental Awareness	18	15.40	8.31
Independence	18	16.60	7.87
Sensitivity to Cultural Heritage	18	11.26	5.41
Total	18	15.66	4.27

Upon examining Table 1, it is concluded that the students in the pilot application group have a "Low" cognitive level in terms of the total score (\bar{x} =15.66) of WAT for Values, as well as in the Respect (\bar{x} =19.13), Responsibility (\bar{x} =14.06), Saving value (\bar{x} =16.26), Being Scientific value (\bar{x} =16.93), Environmental Awareness (\bar{x} =15.40), Independence (\bar{x} =16.60), and Sensitivity to cultural heritage value (\bar{x} =11.26).

The results obtained from the researcher's diary and teacher interviews are as follows:

- It was found that digital story applications attracted students' attention and positively affected their class participation, making classes more productive for both students and practitioners.
- When students used their own pictures in the digital stories they created, they better reflected their inner worlds and conveyed their intended messages more clearly. Therefore, it was concluded that students should be encouraged to create their own visuals rather than using ready-made ones.
- Conducting the entire process of digital story creation in the classroom caused a serious time constraint. Therefore, it was concluded that the process should be divided into both in-class and out-of-class applications.
- It was found that students' individually prepared digital stories were more successful in reflecting their inner worlds. Therefore, it was concluded that digital stories should be prepared individually throughout the process.
- It was concluded that individually prepared digital stories provided students with the opportunity to develop empathy and see values from different perspectives.
- It was concluded that directing students to research the relevant topic would provide them with different perspectives and enable them to consider values beyond their familiar concepts.

- It was found that students struggled to adjust the sound and visual harmony of their digital stories. Therefore, it was concluded that before the actual application, detailed information about the relevant program and an example application should be provided.
- It was concluded that allowing students to conduct the digital story development process would be effective in developing their digital skills.
- It was concluded that a digital story development process that centers on the student and actively involves them in the process would promote complete learning and could be used as an effective teaching tool.
- It was found that the digital story development process allowed students to experience values themselves, making it easier for them to internalize the relevant values.

The results obtained from student interviews are as follows: Students who participated in the pilot program stated that the digital storytelling application process was easy for them and that they did not struggle during the process, and that it was fun to watch the stories they prepared.

- One student who participated in the pilot program stated that he felt embarrassed when he heard his own voice, but that the process was fun.
- Students stated that digital storytelling applications were effective in their learning and helped them remember what they watched better.
- All students who participated in the pilot program expressed their willingness towards the lesson and wanted the application to be done in different courses as well.

They stated that preparing videos using a computer was a process that matched their interests and that they loved doing it, and they were happy to have the opportunity to use a computer during the application. The findings obtained from the pilot program generally showed that students' cognitive structures regarding values were low and needed to be developed. In addition, the researcher's diary and the findings obtained from teacher and student interviews revealed that digital stories could be used as an effective tool in improving students' value development.

Pre-Application Findings Findings on the Cognitive Levels of the Concept of Value in Pre-Application Leveling Process are presented in Table 2 for the first sub-problem of the research, 'What are the cognitive levels of the students who participated in the digital storytelling application process regarding values before the application?'

Table 2. Cognitive Levels of Study Group Regarding Value Concept in Pre-Application Period WAT Results

Values and Total	N	\bar{x}	ss
Respect	15	19.13	6.197
Responsibility	15	14.06	5.885
Saving	15	16.40	3.641
Being Scientific	15	17.06	8.506
Environmental Awareness	15	15.40	8.313
Independence	15	16.40	7.872
Sensitivity to Cultural Heritage	15	11.26	5.417
Total	15	15.67	4.284

When Table 2 is examined, it is concluded that the students in the study group have a 'Low' cognitive level in the total score of the Values WAT (\bar{x} =15.676), Responsibility (\bar{x} =14.066), Sensitivity cultural heritage (\bar{x} =11.266), Respect (\bar{x} =19.133), Environmental awareness (\bar{x} =15.400), Saving (\bar{x} =16.400), Being scientific (\bar{x} =17.066), and Independence (\bar{x} =16.400).

The findings of the second sub-problem of the research, 'What are the cognitive structures of students participating in the digital storytelling application process in terms of values in the pre-application period?' are presented in Table 3.

Table 3. *Concept Distributions Generated by Study Group in Pre-Application WAT*

Values and Total	f	%
Respect	23	17.83
Responsibility	16	12.40
Saving	12	9.30
Being Scientific	20	15.50
Environmental Awareness	16	12.40
Independence	20	15.50
Sensitivity to Cultural Heritage	22	17.05
Total	129	100

When Table 3 is examined, it is concluded that the students in the study group produced a total of 23 concepts related to Respect, including one misconception, 16 concepts related to Responsibility, 12 concepts related to Savings, 20 concepts related to Being Scientific, 16 concepts related to Environmental Awareness, 20 concepts related to Independence, and 22 concepts related to Sensitivity to Cultural Heritage. The results obtained reveal that the students in the study group produced the most concepts for the Value of Respect, with a total of 23 different concepts, and the fewest concepts for the Value of Savings, with 12 concepts.

Findings related to the sentences containing the concepts produced by the students in the study group are presented in Table 4.

Table 4. *The Pre-application Value Concept Sentences*

Evaluation Criteria	Respect	Responsibility	Savings	Being Scientific	Environmental Awareness	Independence	Sensitivity to Cultural Heritage	Total
	f	f	f	f	f	f	f	f
4) The student has used the concept they produced related to a value in the appropriate value context and exemplified it as a behavior from their own experience.	15	13	5	11	5	6	3	58
3) The student has used the concept they produced related to a value in the appropriate value context and exemplified it as a behavior from someone in his close circle.	0	0	0	1	4	0	7	12
2) The student has used the concept they produced related to a value in the appropriate value context and exemplified it as an ideal behavior.	13	12	25	16	21	18	6	111

1) The student did not use the word they produced related to a value in the appropriate value context and did not exemplify it as a behavior.	21	9	14	17	10	22	14	107
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"When the sentences used by the students in the study group, which include the concepts produced in the WAT, were examined in Table 4, it was determined that 58 of the produced sentences were exemplified as a behavior of the student; 12 of them were exemplified as a behavior observed and realized by the student, 111 reflected an ideal behavior, and 107 of them were created without any relation to the relevant value and produced concept. It was concluded that the sentences exemplified by the students as their own behavior were respectively established with the values of Respect (f=15), Responsibility (f=13), and Being Scientific (f=11), and the most unrelated sentences to the value and produced concept were established respectively with the values of Independence (f=22), Respect (f=21), and Being Scientific (f=17).

Findings from the Implementation Process of Action Plans

Findings Obtained from Student Interviews. The findings obtained from student interviews related to the relevant values during the implementation process of action plans are presented in Table 5.

Table 5. Findings from Student Interviews Related to the Relevant Values

Value	Explaining the Value		Value-Oriented Behavior Indicator.		Explanation of the Importance of the Value	
	Correct Context	Wrong Context	Correct Context	Wrong Context	Correct Context	Wrong Context
	f	f	f	f	f	f
Respect	15	0	15	0	14	1
Responsibility	15	0	15	0	14	1
Saving	15	0	15	0	15	0
Being Scientific	15	0	15	0	15	0
Environmental Awareness	15	0	15	0	15	0
Independence	15	0	15	0	15	0
Sensitivity to Cultural Heritage	15	0	15	0	15	0
Total	105	0	105	0	103	2

When Table 5 is examined, it is concluded that the behavior indicator examples provided by the students when describing their values are within their own context and related to the relevant value. When the behaviors related to the importance of the relevant values are examined, it is concluded that the students gave examples outside the context of the values only in their explanations for the importance of the values of 'Respect' and 'Responsibility'.

Findings from Moral Dilemmas. Findings from moral dilemmas related to the relevant values during the implementation of action plans are given in Tables 6 and 7.

Table 6. Findings from First Moral Dilemma Related to the Relevant Values

Values	First Moral Dilemma			
	Student Behaviour		Reason of Student Behaviour	
	Ideal Value	Contradicting Value	Intrinsic Reason	Extrinsical Reason

	<i>f</i>	<i>f</i>	<i>f</i>	<i>f</i>
Respect	15	0	9	6
Responsibility	15	0	9	6
Saving	14	1	13	2
Being Scientific	14	1	13	2
Environmental Awareness	15	0	10	5
Independence	15	0	15	0
Sensitivity to Cultural Heritage	6	9	14	1
Total	94	11	83	22

Table 7. Findings from Second Moral Dilemma Related to the Relevant Values

Values	Second Moral Dilemma			
	Student Behaviour		Reason of Student Behaviour	
	Ideal Value	Contradicting Value	Intrinsic Reason	Extrinsical Reason
	<i>f</i>	<i>f</i>	<i>f</i>	<i>F</i>
Respect	14	1	15	0
Responsibility	15	0	9	6
Saving	15	0	15	0
Being Scientific	11	4	13	2
Environmental Awareness	14	1	15	0
Independence	15	0	15	0
Sensitivity to Cultural Heritage	15	0	15	0
Total	99	6	97	8

As seen in Table 6 and Table 7, when the responses by the students as their behavior in moral dilemma situations were examined, it was concluded that the majority of the students showed ideal behavior towards the relevant value ($f=193$), while a very small number of students exhibited behavior towards the conflicting value ($f=17$). When the reason for the students' responses was examined, it was concluded that the majority of them stated intrinsic reasons as the justification for their behavior ($f=180$), whereas a small number of students stated extrinsic reasons for their behavior ($f=30$).

Findings for Post-Application

Findings related to the Level Determination for Post-Application. The findings related to the cognitive levels of the values of the students who participated in the digital storytelling application process after the application are presented in Table 8.

Table 8. Cognitive Levels of Values of the Study Group for Post-application in WAT

Values and Total	N	\bar{x}	ss
Respect	15	21.00	9.86
Responsibility	15	24.40	9.71
Saving	15	19.06	7.23
Being Scientific	15	20.26	9.68
Environmental Awareness	15	19.93	11.42

Independence	15	12.46	5.52
Sensitivity to Cultural Heritage	15	26.46	9.76
Total	15	20.51	6.18

When the WAT results of the students in the study group regarding values were examined after the application, it was found that the WAT total (\bar{x} =20.51), Responsibility (\bar{x} =24.46), Sensitivity to Cultural Heritage (\bar{x} =26.46), Respect (\bar{x} =21.00), and Being Scientific were at "Medium" level, while Environmental Awareness (\bar{x} =19.93), Savings (\bar{x} =19.06), and Independence (\bar{x} =12.46) were at "Low" cognitive level.

The findings related to the fifth sub-problem of the research, "Is there a significant difference between the cognitive levels of the students participating in the digital storytelling application process in terms of values before and after the application?" are presented in Table 9.

Table 9. *Wilcoxon Signed Ranks Test Results for the Pre-Application and Post-Application Cognitive Levels of the Study Group Regarding Values*

WAT Total and Values	Pre and Post Application	n	Mean Rank	Sum of Ranks	z	P
Respect	Negative ranks	4	3.38	13.50	2.644*	.000
	Positive ranks	11	9.68	106.50		
	Ties	0				
Responsibility	Negative ranks	1	2.000	2.000	3.295*	.001
	Positive ranks	14	8.430	118		
	Ties	0				
Saving	Negative ranks	7	7.07	49,5	.597*	.550
	Positive ranks	8	8.81	70.5		
	Ties	0				
Being Scientific	Negative ranks	5	7.50	37.5	1.278*	.201
	Positive ranks	10	8.25	82.5		
	Ties	0				
Environmental Awareness	Negative ranks	6	6.17	37	1.315*	.188
	Positive ranks	9	9.22	83		
	Ties	0				
Independence	Negative ranks	4	8.12	32.50	.910*	.363
	Positive ranks	9	6.50	58.50		
	Ties	2				
Sensitivity to Cultural Heritage	Negative ranks	8	10.06	80.50	1.166*	.244
	Positive ranks	7	5.64	39.50		
	Ties	0				
Total	Negative ranks	4	5.00	20	2.272*	.023
	Positive ranks	11	9.09	100		
	Ties	0				

*Based on the principle of negative ranks

When the Wilcoxon Signed Ranks Test results of the application pre-application and post-application scores related to the values of the study group were examined, it was found that there was no statistically significant difference ($p > .05$) between the pre-application and post-application scores of the Respect, Natural Environmental awareness, Savings, Being scientific, and Independence values; however, a statistically significant difference ($z=2.644, p < .05$) was found between the pre-application and post-application scores of the Responsibility value, the Cultural Heritage Sensitivity value ($z=3.295, p < .05$), and the overall scale ($z=2.272, p < .05$); and it was concluded that this difference was in favor of the post-test scores.

The findings related to the cognitive structures of the values of the students who participated in the digital storytelling application process after the application are presented in Table 10.

Table 10. *Concept Distributions Generated by Study Group in Post-Application WAT*

Value	F	%
Respect	29	16.29
Responsibility	24	13.48
Saving	15	8.43
Being Scientific	31	17.42
Environmental Awareness	22	12.36
Independence	28	15.73
Sensitivity to Cultural Heritage	29	16.29
Total	178	100

When Table 10 is examined, it is concluded that the students in the study group produced a total of 29 concepts related to the Value of Respect, 24 concepts related to the Value of Responsibility, 15 concepts related to the Value of Savings, 31 concepts related to the Value of Being Scientific, including one misconception, 22 concepts related to the Value of Environmental Sensitivity, 28 concepts related to the Value of Independence, including six concept misconceptions, and a total of 29 concepts related to the Value of Sensitivity to Cultural Heritage after the WAT application.

The findings related to the sixth sub-problem of the research, "Is there a significant difference between the pre-application cognitive structures and post-application cognitive structures of the students participating in the digital storytelling application process in terms of values?" are presented in Table 11.

Table 11. *Pre- and Post-Application KIT Results of the Study Group's Cognitive Structures for Values*

Value	Pre-application Concepts	Post-application Concepts
	N	N
Respect	23	29
Responsibility	16	24
Saving	12	15
Being Scientific	20	31
Environmental Awareness	16	22
Independence	20	28
Sensitivity to Cultural Heritage	22	29
Total	129	178

When Table 11 is examined, it is seen that the students produced more concepts in all of the concepts they produced for the relevant values in the post-application WAT after the application than the concepts they produced in the pre-application WAT. When the related concepts were examined, it was found that the most conceptual increase was observed in the values of Being scientific (N=11), Independence (N=8), and Responsibility (N=8); It was concluded that these were followed by the values of Sensitivity to Cultural Heritage (N=7), Respect (N=6), and Saving (N=3) respectively.

The findings related to the sentences that include the concepts produced by the students in the post-WAT application are given in Table 12.

Table 12. Sentences Containing the Concepts Produced in the Post-WAT

Value								
Evaluation Criteria	Respect	Responsibility	Saving	Being Scientific	Environmental Awareness	Independence	Sensitivity to Cultural Heritage	Total
	<i>f</i>	<i>f</i>	<i>f</i>	<i>f</i>	<i>f</i>	<i>f</i>	<i>f</i>	<i>f</i>
4	24	26	7	15	15	6	24	117
3	3	5	3	1	2	0	7	21
2	9	9	31	15	25	12	16	117
1	14	16	2	20	7	31	15	105
Total	50	56	43	51	49	49	62	360

4: The student used the word he produced for value in the context of the relevant value and exemplified it as a behavior from his own life.

3: The student used the word he produced for value in the context of the relevant value and exemplified it as a behavior belonging to someone from his close circle.

2: The student used the word he produced for value in the context of the relevant value and exemplified it as an ideal behavior.

1: The student did not use the word he produced for value in the context of the relevant value and did not exemplify it as a behavior.

When Table 12 is examined, when the sentences in which the students in the study group use the words they produced in the WAT are examined, 117 of the sentences produced are as a behavior belonging to the student; It was concluded that 21 of them were formed as a behavior that the student observed and aware of, 117 of them were created to reflect an ideal behavior, and 105 of them were created unrelated to the relevant value and the concept produced. The sentences exemplified by the students as their own behavior were formed with the values of Responsibility (f=26), Respect (f=24), and Sensitivity to Cultural Heritage (f=24), and the most sentences unrelated to the value and the concept produced were Independence (f=31), respectively. , Responsibility (f=16) and Sensitivity to Cultural Heritage (f=15) values have been reached.

Table 13 shows the findings of the comparison of the sentences in which the concepts produced by the students in the study group in the pre- and post-WAT.

Table 13. The Sentences Containing the Concepts Produced by the Students in the pre and post-WAT

Evaluation Criteria	Value															
	Respect		Responsibility		Saving		Being Scientific		Environmental Awareness		Independence		Sensitivity to Cultural Heritage		Total	
	BA f	AF f	BA f	AF f	BA f	AF f	BA f	AF f	BA f	AF f	BA f	AF f	BA f	AF f	BA f	AF f
4	15	24	13	26	5	7	11	15	5	15	6	6	3	24	58	117
3	0	3	0	5	0	3	1	1	4	2	0	0	7	7	12	21
2	13	9	12	9	25	31	16	15	21	25	18	12	6	16	111	117
1	21	14	9	16	14	2	17	20	10	7	22	31	14	15	107	105
Total	49	50	34	56	44	43	45	51	40	49	46	49	30	62	288	360

4: The student used the word he produced for value in the context of the relevant value and exemplified it as a behavior from his own life.

3: The student used the word he produced for value in the context of the relevant value and exemplified it as a behavior belonging to someone from his close circle.

2: The student used the word he produced for value in the context of the relevant value and exemplified it as an ideal behavior.

1: The student did not use the word he produced for value in the context of the relevant value and did not exemplify it as a behavior.

In Table 13, the distribution of the sentences formed by the students using the concepts they produced in the pre- and post-WAT is given. It was concluded that the sentences produced by the students in the post-WAT (f=360) were more than the number of sentences they produced in the pre-WAT (f=288). According to the evaluation criteria (4), it was concluded that the highest increase was in the values of Sensitivity to Cultural Heritage, Responsibility, and Environmental awareness, and these values were followed by the values of Respect, Being Scientific, Saving, and Independence. According to the evaluation criteria (3), the highest increase was in the values of Responsibility, Respect, and 'Savings', respectively. It was concluded that there was no change in the values of Scientificness, Independence, and Sensitivity to Cultural Heritage, and there was a decrease in the sentences created for the Sensitivity to the Natural Environment value. According to the evaluation criteria, the highest decrease was in the values of Independence, Respect, Responsibility, and Scientificness, respectively. It was concluded that the highest increase occurred in the values of Sensitivity to Cultural Heritage, Saving, and Sensitivity to the Natural Environment, respectively. According to the evaluation criteria (1), it was concluded that the highest decrease was in the values of Saving, Respect, and Sensitivity to the Natural Environment, respectively, and the highest increase was in the values of Independence, Responsibility, Scientificness, and 'Cultural Heritage Sensitivity', respectively.

CONCLUSION AND DISCUSSION

In this study, the aim is to examine the value development process of 5th-grade students through the use of digital stories in the Social Studies Lesson. As a result of the research, it has been concluded that

the use of digital stories in value education has positive effects on the value development levels of students, and that digital stories can be used as an effective method in value education.

As a result of the research, it was concluded that the cognitive level of the students for values increased in all values except the independence value. This result was interpreted as digital stories enable students to see values from different perspectives, students learn other concepts about related values through peer learning, and digital stories create role models for student behaviors. In addition, when the sentences formed by the students using the concepts they produced for the relevant value in the post-WAT were examined, it was concluded that there was a significant increase in the number of sentences that the students exemplified as their own behavior compared to pre-WAT. This result was interpreted as digital stories act as a role model for students and help them internalize values by helping them see the requirements and behavioral indicators of the relevant value. When the literature is examined, a limited number of studies have been found that address the effects of digital story and technology use on values (Balaman, 2016; Condy et al., 2012; Marín et al., 2018; Masmuzidin et al., 2012; Narinasamy & Mamat, 2013; Skouge & Rao, 2009; Yürük, 2015). In these studies, digital stories can be used effectively in the field of values education (Yürük, 2015), digital storytelling is an effective tool in teaching basic values in the field of special education (Skouge & Rao, 2009), and digital tools have an important role in moral and values education. (Masmuzidin et al., 2012; Narinasamy & Mamat, 2013).

After each action plan was applied for the relevant values throughout the research, semi-structured interview questions were conducted with all the students in the classroom. As a result of the interviews with the students, it was seen that the students used the concepts that they did not use in their digital stories as examples while defining the relevant values. In addition, in the interviews with the students, it was concluded that the students gave examples from the digital stories they watched and supported them. This result was interpreted as the students were also influenced by the digital stories prepared by their friends and developed different perspectives towards the relevant value. Sadik (2008) stated that the use of motivating tools such as digital stories in the teaching environment improves the learning experiences of their students. Gordon (2011) states that digital stories offer students a new method to improve their own learning. When all the results were evaluated, it was concluded that the use of digital stories for the value development of the students within the action plans created within the scope of the research contributed to the value development of the students. In addition, the findings obtained in the research revealed that digital stories can be used as effective materials and can be adapted to various environments and subjects. Studies in the literature (Baki & Feyzioğlu, 2017; Grindle, 2014; Hui, 2016; Korucu, 2020; Morris, 2011; Özer, 2016; Rosmar, 2014) show that digital stories can be used effectively in the classroom environment. Therefore, as a result of the research, it was concluded that digital stories are an effective material in the value development process of students.

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