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AN EXAMINATION OF THE RELATIONSHIP OF STORYTELLING WITH CREATIVE THINKING AND CITIZENSHIP EDUCATION IN PRESCHOOL EDUCATION

İsmail Gelen[1i],
Ayse Acici Duran[2]
[1]Prof. Dr.,
Faculty of Education,
Department of Curriculum and Instruction,
Ondokuz Mayıs University,
Samsun, Türkiye
[2]Ministry of Education,
Preschool Teacher and Education & Instruction Expert
Amasya, Türkiye

Abstract:
This research aims to determine the relationship between storytelling, an effective learning method, and creative thinking and its contribution to citizenship education. A mixed research method, combining quantitative and qualitative research methods, was used in the research. Kaytez's "Creative Thinking and Personality Traits Scale (YDKÖÖ)" was used in the quantitative part of the research. A semi-structured interview form was used in the qualitative part of the research. The study sample consisted of 120 5-year-old students attending independent kindergartens affiliated with the Amasya Provincial Directorate of National Education in the 2024-2025 academic year. The SPSS 23 package program was used to analyze the quantitative data, and analyses were conducted using parametric tests such as the independent samples t-test and One-way Anova. The MAXQDA-24 qualitative data analysis program was used for the analyses of the qualitative dimension of the research. According to the quantitative analysis results performed to determine the relationship between storytelling and creative thinking; The experimental group was found to have statistically higher total scores and averages on the creative thinking and personality traits scales than the control group. The qualitative analysis conducted to examine the relationship between storytelling and citizenship education revealed that the experimental group, which used the storytelling method, was able to provide more detailed and appropriate answers to the questions. In the control group, the response "I don't know" as a subcode was found to be more frequent than the experimental group. In summary, the analyses revealed that storytelling significantly contributes to creative thinking and citizenship education.

[i] Correspondence: email ddrismail@hotmail.com

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1. Introduction

Preschool education is the period in which the foundations of fundamental behaviors, which form the foundation of a child's physical, mental, and personality, are laid along with the cultural values of society, from birth until they reach school age (Oral, 1997). Concrete experiences in the preschool period will make the material learned permanent. Learning is a thinking skill that develops in the mind and is reflected in behavior (Gelen, 2003). Therefore, creativity education should begin at an early age and ensure the internalization of behavior. The evolving and changing world requires creative, exploratory, and questioning individuals. Instead of simply providing children with ready-made information during preschool, teaching and learning methods should be chosen that encourage children to investigate, question, think, and create original products by demonstrating their creativity. For the development of creativity, each child should be given the opportunity to learn at their own pace, in line with their learning style, by engaging multiple senses (Argun, 2012). It is the period when children innately acquire creativity skills and gain different perspectives through the teaching methods applied in the pre-school period (Boden, 2004; Fox & Schirrmacher, 2014).

The period when children's creativity level is at its highest is the preschool period (Levine, 2002). During this period, being free from social pressure positively affects creativity (San, 2004). Human beings feel the need to pass on their knowledge. They have used stories as a tool when passing on to future generations. They have used stories not only as a means of entertainment, but also as an aid in the transfer of knowledge, morality and experience for educational purposes (Egan, 1986). Nurjanah et al. (2024) revealed that the creative thinking abilities of preschool children help them produce innovative solutions, adapt to the challenges they encounter, and also enrich their experience and knowledge about the world around them by encouraging their self-confidence and courage. In addition, it has been emphasized that the creative thinking abilities of preschool children are affected by external environmental cooperation factors such as parents, teachers and society. Çeliker (2019) examined the relationship between the creativity level and social problem-solving skills of 5-year-old children receiving education in preschool institutions. As a result of the study, duration of school attendance and birth order; For the Fluency subtest, length of school attendance and for the Originality subtest, birth order showed significant differences. Furthermore, a statistically significant and positive correlation was found between fluency and originality subtest scores.

Through the story-based teaching method, children will actively participate in the learning process and achieve more lasting learning by experiencing the subject within a cycle of events. Stories introduce children to the environment related to the society in which they grow up and play a significant role in their adoption of behaviors that are either socially accepted or rejected (Bruner, 1991). The role of education is not only to

impart knowledge but also to develop individuals who can think, approach situations from different perspectives, and propose solutions. Individuals living in a society must adhere to certain behavioral patterns. Initiating these behaviors at an early age will facilitate children's internalization of these attitudes and values, thus increasing their social integration. Stories stand out as an effective tool in achieving educational goals; thus, it is possible to achieve the desired human profile through education. In addition to cognitive education, schools aim to raise patriotic, respectful individuals (Yüksel, 2005). Preschool children's creative thinking abilities are thought to help them generate innovative solutions, adapt to the challenges they face, and enrich their experience and knowledge of the world around them by fostering self-confidence and courage (Nurjanah, 2024). Education is also crucial in citizenship education. It is a beneficial approach for educators and educational planners to focus on citizenship education by taking cultural values and changes in the modern world into account (Geiger, 2023; Yavuz, 2016). Doğan (2019) investigated the impact of storytelling involving literary works on achievement. The average achievement score using the storytelling method was found to be higher than that of the control group, which received the traditional teaching method. Qualitative data analysis revealed that students gained historical empathy skills and were able to think of content related to storytelling.

It is crucial that the planning and implementation of preschool education adhere to principles that are developmentally appropriate and based on holistic approaches, taking into account individual differences. Some of these principles include: importance should be given to speaking the mother tongue correctly and beautifully, skills should be spiral, skills should be holistic, they should be integrated with life, conceptual skills should form the basis of learning outcomes, they should be associated with national and spiritual values, awareness should be raised about literacy skills, field skills should be associated with social-emotional learning skills, they should be suitable for individual differences, educational processes should be differentiated, science should be utilized, environments should facilitate skill acquisition, interest, environment and school opportunities should be taken into consideration, material and spiritual characteristics should be taken into account, from concrete to abstract, from simple to complex, the principle of near to far should be adopted, activities should be organized based on play, a democratic environment should be created, evaluation should be done regularly throughout the process, evaluation results should support skill acquisition, evaluation should be shared with families, effective participation of the family and society should be ensured, and importance should be given to guidance and psychological counseling services (MEB, 2024).

Different stimuli provided through pre-school education support the child's development (MEB, 2024). Language development will increase through socialization with peer groups from diverse backgrounds. The foundation for social skills such as peer interaction, group rule-following, sharing, and cooperation is laid during this period. This facilitates the child's ability to become a part of social life. During this period, the child should be considered holistically, and all areas of development should be supported

(Zembat, 2010). Storytelling, on the other hand, demonstrates the effectiveness of the method in developing children's creative thinking, responsibility skills, and respect for social values. The Turkey Century Education Model, developed by the Ministry of National Education, facilitates and guides teachers by ensuring that the achievements in terms of values education and holistic development are realized through concrete and practical learning.

This research is limited to the 2024-2025 academic year and the research is limited to 5-year-old children in independent kindergartens affiliated with the Amasya Provincial Directorate of National Education. In addition, the findings to be obtained from the research are limited to the results obtained with the data collection tools used in the research.

This research is the first to examine storytelling in terms of creative thinking and citizenship education by addressing "both dimensions" simultaneously. The aim of this study is to determine the relationship between storytelling, an effective learning method, and creative thinking, as well as students' perspectives on citizenship education.

This study sought to answer the following questions:

1) What are the creative thinking and personality traits scale scores of the experimental and control groups as a result of the storytelling implemented in preschool education?
2) Is there a difference between the storytelling implemented in preschool education and the creative thinking in terms of family demographics?
3) Does the storytelling implemented in preschool education show a significant difference in students' creative thinking and personality traits in favor of the experimental group?
4) What are the students' views on citizenship education as a result of the storytelling implemented in preschool education?
5) Is there a similarity between the students' creative thinking and citizenship education views as a result of the storytelling implemented in preschool education?

2. Research Method

The research model, sample, permissions, data collection tools, data collection process and data analysis dimensions are mentioned below.

2.1 Research Design

This study examined the relationship between storytelling in preschool education and creative thinking and citizenship education. Storytelling was the independent variable, and creative thinking and citizenship education were the dependent variables. A mixed-method research design was employed in the study, combining qualitative and quantitative methods. Of the six research designs identified for mixed methods research, the "convergent parallel design" was employed. Two equal sample groups, an

experimental group and a control group, were selected, and stories aligned with the preschool curriculum learning outcomes were read to the experimental group students. The qualitative and quantitative stages of the study were administered simultaneously to the students, and data were obtained. Quantitative data were collected using the Creative Thinking and Personality Traits Scale, while qualitative data were collected through semi-structured interview questions, with equal emphasis placed on each method. The quantitative and qualitative findings were analyzed separately, similarities and differences between the results were revealed, and inferences were drawn. A case study research design was used to determine the students' views on citizenship education, which constituted the qualitative part of the study. Stories, determined according to the preschool curriculum learning outcomes, were read to the experimental group students in accordance with the program's order of learning outcomes. After reading all the stories, the students' creative thinking levels were assessed using the Creative Thinking and Personality Traits Scale, and parametric analyses were conducted using SPSS 23.0. Students were interviewed individually and asked to respond to the interview questions. This allowed for an examination of their level of civic knowledge. The responses to the interview questions were entered individually into the MAXQDA (2024) program to create codes and subcodes.

Other independent variables in the study were gender, parental age, parental education level, and family income. The 15-item "Creative Thinking and Personality Traits Scale (YDKÖÖ)" developed by Kaytez and Ayter (2017) was used in the quantitative part of the study. A 10-item semi-structured interview form was used in the qualitative part of the study. The children were interviewed individually to provide responses to the interview questions.

2.2 Sampling and Study Group

The research sample consisted of 5-year-old students attending an independent kindergarten affiliated with the Amasya Provincial Directorate of National Education during the 2024-2025 academic year. Typical case sampling, a type of non-random sampling and a purposeful sampling technique, was used to select the sample. A sample is created by selecting a typical case from a large number of situations within the population related to the research problem (Büyüköztürk, 2008). In this context, there were 60 students in the experimental group and 60 in the control group. The schools comprising the sample were those that received approval following an application to the Directorate of National Education.

Of the 60 participants in the **experimental group**, 31 (51.6%) were female and 29 (48.4%) were male. It was seen that the mothers of the participants were 24 students (40.0%) between the ages of 25-34, 35 students (58.3%) between the ages of 35-44, and 1 student (1.7%) between the ages of 45-54. It was seen that the fathers of the participants were 20 students (33.3%) between the ages of 25-34, 36 students (60.0%) between the ages of 35-44, and 4 students (1.7%) between the ages of 45-54. When the educational background of the participants' mothers was examined, it was determined that 5 students

(8.3%) were primary school students, 10 students (16.6%) were secondary school students, 24 students (40.0%) were high school students, 6 students (10.0%) had an associate degree, 14 students (23.3%) had a bachelor's degree, and 1 student (1.6%) had a master's degree. When the participants' fathers' educational background was examined, it was determined that 4 students (6.6%) were in primary school, 5 students (8.3%) were in secondary school, 24 students (40.0%) were in high school, 7 students (11.6%) were in associate degree, 17 students (28.3%) were in undergraduate degree, and 3 students (5.0%) were in postgraduate degree. Finally, it was seen that the family income levels of the participants were at the middle income level, with 49 participants (81.6%), 10 participants (16.6%) were at the high income level, and 1 participant (1.6%) was at the low income level.

Of the 60 participants in the **control group**, 30 (50.0%) were male, and 30 (55.0%) were female. It was seen that the mothers of the participants were 1 student (1.6%) between the ages of 18-24, 22 students (36.6%) between the ages of 25-34, 36 students (60.0%) between the ages of 35-44, 1 student (1.6%) between the ages of 45-54. It was seen that the fathers of the participants were 10 students (6.6%) between the ages of 25-34, 49 students (81.6%) between the ages of 35-44, and 1 student (1.6%) between the ages of 45-54. When the participants' mothers' educational background was examined, it was determined that 4 students were primary school students (%6.6), 4 students were secondary school students (%6.6), 10 students were high school students (%16.6), 10 students were associate degree students (%16.6), 28 students were undergraduate degree (46.6%), and 4 students were postgraduate degree students (%6.6). When the participants' fathers' educational background was examined, it was determined that 2 students were primary school students (%3.3), 4 students were secondary school students (%6.6), 13 students were high school students (%21.6), 3 students were associate degree students (%5.0), 30 students were undergraduate degree (50.0%), and 8 students were postgraduate degree students (%13.3). Finally, when the table was examined, it was seen that the family income levels of the participants were at the middle income level with 40 participants (%66.6), 15 participants (%25.0) had high income, and 5 participants (%8.3) had low income.

2.3 Permissions

Before beginning the study, permission was obtained to use the Creative Thinking and Personality Traits Scale (YDKÖÖ). An expert opinion was also obtained to ensure that the stories to be read in the study met the objectives and sub-objectives. A study permit was obtained from the Amasya Directorate of National Education (number 2024.000334). Furthermore, the study was initiated after obtaining approval from the Ondokuz Mayıs University Social and Human Sciences Ethics Committee (decision number 2024-508).

2.4 Data Collection Tools

In order to examine the relationship between Storytelling in Pre-School Education and Creative Thinking, “Creative Thinking and Personality Traits Scale (YDKÖÖ)” was used,

and a "semi-structured interview form" was used in order to examine the views of students about citizenship education regarding Storytelling in Pre-School Education. The validity and reliability study of the Creative Thinking and Personality Traits Scale (YDKÖÖ) scale, which was conducted by Nazan Kaytez and Aytar in 2017, is a four-point Likert-type scale consisting of a single dimension. In the study, a demographic feature questionnaire consisting of 6 questions, a "Creative Thinking and Personality Traits Scale (YDKÖÖ)" scale consisting of 15 questions and an interview form consisting of 10 questions prepared by the researcher in accordance with the objectives of the study, were used.

The Creative Thinking and Personality Traits Scale (YDKÖÖ) is a published scale with proven **reliability** and **validity**. In addition, the researchers performed another Cronbach's Alpha reliability analysis, and the reliability of the scale was found to be Cr. α= 0.95. According to the results of the exploratory factor analysis (EFA) conducted to reveal the structure of the scale, it was determined that the scale consisted of a single dimension and 15 items. The regression coefficients obtained as a result of the confirmatory factor analysis (CFA) were found to vary between 0.40 and 0.70, t values were above the critical value of 1.96, and the fit indices were found to be χ2=645.13, sd=350.61, X2/sd=1.84, RMSEA=0.064, CFI=0.92, NNFI=0.91, and NFI=0.91, thus confirming that the scale consisted of 15 items and a single dimension. The Creative Thinking and Personality Traits Scale is a 4-point Likert-type scale. Scale scores are 0 = not at all; 1 = low; 2 = high; 3 = very high, and interpretations are based on the total score. There are no reverse-coded items. A high score on the scale indicates a high degree of creative thinking and personality traits (Kaytez & Aytar, 2017).

2.5 Data Analysis

2.5.1 Quantitative Data Analysis

In the study, data obtained from students and parents were entered into SPSS (Statistical Package for Social Sciences) 23.0 statistical program for data analysis. Descriptive statistical techniques (f, %, SD, arithmetic mean, etc.) were used in the analysis of independent variables. Skewness and kurtosis values were examined to determine whether parametric or non-parametric tests should be used in the analysis. Since the distribution normality test revealed a normal distribution, parametric t-test and one-way analysis of variance (ANOVA) were used in the data analysis. A value of 0.05 was accepted for significance assessment. An Independent Samples T-test was conducted to investigate whether there was a significant difference between storytelling and creative thinking based on the gender variable. A One-Way ANOVA (One-Way Analysis of Variance) test was conducted to investigate whether there were significant differences between storytelling and creative thinking based on variables such as mother's age, father's age, mother's education level, father's education level, and family income level. Analyses were conducted using data obtained from teachers' observations of children and were interpreted in tables.

2.5.2 Qualititative Data Analysis

The MAXQDA 24 qualitative data analysis program was used for qualitative data analysis. To analyze the data obtained in the first study, the participating students were coded as T1, T2, T3, T4, and T5, and their responses to the interview questions were transcribed verbatim using Microsoft Word. These data were then transferred to the MAXQDA 24 program. The data obtained in the study were read line by line to create main themes and codes. The resulting data was presented using visual diagrams. Based on the codes and subcodes generated from the students' responses to the interview questions, an attempt was made to examine students' perspectives on the impact of storytelling on citizenship education in preschool education.

3. Findings

The research findings are presented below systematically, in line with the research model and questions. Quantitative findings are presented first, followed by qualitative findings. These two sets of findings are then combined to draw conclusions.

3.1 Findings of Quantitative Data

3.1.1 Findings Regarding the Creative Thinking and Personality Traits Scale Scores of the Experimental and Control Groups as a Result of the Storytelling Applied in Preschool Education

As a result of the storytelling applied to the experimental and control groups, descriptive findings regarding the creative thinking and personality traits scale scores are given in the table below.

Table 1: Descriptive Statistical Analysis of **Experimental Group** and **Control Group** Creative Thinking and Personality Traits Scale

	N	$\bar{X}_{expiment}$	$\bar{X}_{control}$	**Std. Dev**$_{deney}$	**Std. Dev**$_{control}$
1. S/he is curious about many things and constantly asks questions about topics he is curious about (e.g., how things work, about nature, etc.).	60	3,5333	2,5833	,65008	,84956
2. Original things interest them and they ask questions that are unexpected for their age.	60	3,2000	2,3000	,73184	,78762
3. They enjoy playing imaginative and creative games.	60	3,2000	2,5667	,68396	,76727
4. They play games they create and act out.	60	3,3500	2,5500	,57711	,74618
5. They have original ideas when playing games they create or act out.	60	3,3000	2,4500	,59089	,81146
6. They create their own games.	60	3,3167	2,5167	,62414	,74769
7. They make toys with objects around them.	60	3,3500	2,4833	,51503	,74769
8. They are interested in learning new things.	60	3,3833	2,6333	,49030	,80183
9. They offer original solutions to problems they observe.	60	3,2333	2,5167	,62073	,72467
10. They are interested in activities such as playing with play dough, painting, or drawing.	60	3,4500	2,9167	,56524	,86928

11. They enjoy playing mind games that require thinking and finding new solutions.	60	3,2833	2,3667	,55515	,75838
12. They have a well-developed sense of humor and enjoy joking.	60	3,2833	2,4000	,64022	,76358
13. They enjoy games played with songs, lyrics, or words.	60	3,3000	2,4833	,61891	,81286
14. They have a determined personality; when they start a task, they work hard until it is finished, even if it is difficult.	60	3,3000	2,9167	,64572	,76561
15. They are open to new experiences and love innovation and change.	60	3,3667	2,6833	,51967	,72467

When Table 1 is examined, 60 people answered the scale in the experimental group. The minimum and maximum scores for the scale questions were 2 and 4. According to the data collection tool range, the highest arithmetic mean for the 2nd item was 3.20 (quite a lot), and the lowest for the 1st item was 3.53 (a lot). In the control group, the minimum and maximum scores for the scale questions were 1 and 3. According to the data collection tool range, the highest arithmetic mean for the 10th and 14th items was 2.9167 (quite a lot), and the lowest for the 2nd item was 2.3000 (a little).

3.1.2 Findings Regarding the Significant Difference Analysis of the Relationship Between Storytelling and Creative Thinking in Preschool Education According to Demographic Information

The second sub-problem of the research, "Is there a significant difference between storytelling and creative thinking in preschool education?", is given below with the results of the independent groups t-test analysis for gender and maternal age variables.

Table 2: Independent Sample T-Test between the **Experimental Group** Creative Thinking and Personality Traits Scale Total Scores and **Gender Variable and Mother's Age**

Gender	**N**	$\bar{X}$	**ss**	**F**	**sd**	**p**
Girl	30	48,6	6	0,189	58	0,14
Boy	30	51	6,2			
Mother's Age						
25-34	24	32,2	5,58	-1,749	57	0,086
35-44	36	36,05	6,59			

An examination of Table 2 reveals no significant difference in the total score of the YDKÖÖ scale in the experimental group by gender (p=0.14). The total scores given to male and female students are similar (X_{girl}=48.6 – X_{boy}=51). When the mean scores of the creative thinking and personality traits scales for storytelling are examined, it is seen that there is no significant difference (p<0.05) in terms of the mother's age variable (p:0.086).

The second sub-problem of the research, "Is there a significant difference between storytelling and creative thinking in pre-school education?", is given below, along with the results of the ANOVA test analysis conducted for the variables of father's age, mother's education status, father's education status, and family income status.

Table 3: ANOVA Table for **Experimental Group Father's Age, Mother and Father's Education Status, Family Income Status** Variables

Father's Age	**Sum of Squares**	**Sd**	**Mean Squares**	**f**	**p**
Intergroup	96,148	2	48,074	1,256	0,293
Intragroup	2181,502	57	38,272		
Total	**2277,650**	**59**			
Mother's Education Status					
Intergroup	154,393	5	30,879	0,785	0,565
Intragroup	2123,257	54	39,320		
Total	**2277,650**	**59**			
Father's Education Status					
Intergroup	213,851	5	42,770	1,119	0,361
Intragroup	2063,799	54	38,219		
Total	**222,650**	**59**			
Family Income Status					
Intergroup	33,142	2	16,571	0,421	0,659
Intragroup	2244,508	57	39,377		
Total	**222,650**	**59**			

When the mean scores of creative thinking and personality traits of storytelling were examined in the experimental group, it was found that there was no significant difference ($p \geq 0.05$) in terms of the father's age variable, mother's and father's education status, and family income status.

Table 4: Independent Sample T-Test Between the Total Score of the **Control Group's Creative Thinking** and **Personality Traits Scale** and the **Gender Variable**

Gender	**N**	**$\bar{X}$**	**ss**	**f**	**sd**	**p**
Girl	30	40,23	7,99	0,01	58	0,85
Boy	30	36,50	8,48			

When the total scores of the YDKÖÖ scale were examined in the control group, it was seen that there was no significant difference according to gender ($p.\geq 0.05$).

Table 5: ANOVA Table for **Control Group Mother** and **Father Age**, **Mother** and **Father Education Status**, **Family Income Status** Variables

	Sum of Squares	**Sd**	**Mean Squares**	**f**	**p**
Mother's Age					
Intergroup	70,56	3	23,520	0,323	0,809
Intragroup	4079,374	56	72,846		
Total	**4149,933**	**59**			
Father's Age					
Intergroup	59,401	2	29,700	0,414	0,663
Intragroup	4090,533	57	71,764		
Total	**4149,933**	**59**			
Mother's Education Status					
Intergroup	221,976	5	44,395	0,610	0,692
Intragroup	3927,957	54	72,720		

Total	4149,933	59			
Father's Education Status					
Intergroup	419,247	5	83,849	1,214	0,313
Intragroup	3730,686	54	69,087		
Total	**4149,933**	**59**			
Family Income Status					
Intergroup	178,700	2	89,350	1,282	0,285
Intragroup	3971,233	57	69,671		
Total	**4149,933**	**59**			

When the mean scores of creative thinking and personality traits of storytelling were examined in the control group, it was found that there was no significant difference ($p \leq 0.05$) in terms of mother and father age variables, mother and father education levels, and family income status.

3.1.3 Findings Regarding the Comparison of the Experimental and Control Group Scores in Terms of Preschool Storytelling, Students' Creative Thinking, and Personality Traits

The independent groups t-test analysis findings, which were conducted to test whether the storytelling implemented in pre-school showed a significant difference in favor of the experimental group for each item in terms of students' creative thinking and personality traits, are given in the table below.

Table 6: Independent Samples t-test between the **Experimental Group** and **Control Group** and the YDKÖÖ Total Score of Each Item

Group/ Item	**N**	**$\bar{X}$**	**ss**	**f**	**sd**	**p**
Experiment/Item 1	60	3,5333	0,65008	6,879	110,452	0,000
Control/Item 1	60	2,5833	0,84956			
Experiment /Item 2	60	3,2000	0,73184	6,484	118	0,000
Control/Item 2	60	2,3000	0,78762			
Experiment/Item 3	60	3,2000	0,68396	4,773	118	0,000
Control/Item 3	60	2,5667	0,76727			
Experiment/Item 4	60	3,3500	0,57711	6,569	110,984	0,000
Control/Item 4	60	2,5500	0,74618			
Experiment/Item 5	60	3,3000	0,59089	6,559	107,838	0,000
Control/Item 5	60	2,4500	0,81146			
Experiment/Item 6	60	3,3167	0,62414	6,362	114,349	0,000
Control/Item 6	60	2,5167	0,74769			
Experiment/Item 7	60	3,3500	0,51503	7,394	104,700	0,000
Control/Item 7	60	2,4833	0,74769			
Experiment/Item 8	60	3,3833	0,49030	6,181	97,709	0,000
Control/Item 8	60	2,6333	0,80183			
Experiment/Item 9	60	3,2333	0,62073	5,818	118	0,000
Control/Item 9	60	2,5167	0,72467			
Experiment/Item 10	60	3,4500	0,56524	3,984	101,325	0,000
Control/Item 10	60	2,9167	0,86928			

Experiment/Item 11	60	3,2833	0,55515	7,555	108,125	0,000
Control/Item 11	60	2,3667	0,75838			
Experiment/Item 12	60	3,2833	0,64022	6,867	114,517	0,000
Control/Item 12	60	2,4000	0,76358			
Experiment/Item 13	60	3,3000	0,61891	6,192	110,201	0,000
Control/Item 13	60	2,4833	0,81286			
Experiment/Item 14	60	3,3000	0,64572	2,965	114,735	0,004
Control/Item 14	60	2,9167	0,76561			
Experiment/Item 15	60	3,3667	0,51967	5,936	106,991	0,000
Control/Item 15	60	2,6833	0,72467			

When the experimental and control group data were analyzed, the independent samples t-test results for each item revealed a statistically significant difference between the experimental and control groups for all items ($p \leq 0.001$). When the total scale scores were analyzed, it was observed that the experimental group had higher mean total scale scores for **each item** than the control group.

In addition, a difference analysis was performed between the total YDKÖÖ scores of the experimental and control groups.

Table 7: Independent Samples t-test between **Experimental Group** and **Control Group** on YDKÖÖ Total Score

Group	**N**	**$\bar{X}$**	**ss**	**F**	**sd**	**p**
Experiment	60	49,8500	0,8	8,522	118	0,000
Control	60	38,3667	1,08			

When Table 16 is examined, according to the independent sample t-test result between the experimental and control groups in terms of YDKÖÖ total score, there is a significant difference ($p=0.000$) between the two groups ($X_{experiment}=49.8500$, $SD=0.8$) and ($X_{control}=38.3667$, $SD=1.08$) in favor of the experimental group.

3.2 Findings of Qualitative Data

3.2.1 Findings Regarding Students' Views on Citizenship Education as a Result of Storytelling Applied in Preschool Education

A qualitative analysis was conducted to address the sub-problem of "What are students' views on citizenship education?" as a result of the storytelling implemented in preschool education. Stories tailored to the preschool curriculum learning outcomes were read to the experimental group students. The resulting qualitative data were individually analyzed and entered into the MAXQDA-24 program to generate codes and subcodes. Codes and subcodes were determined as a result of these interviews, and these codes are presented in Figure 1.

Below is the code cloud obtained from the student interviews with the experimental group.

Figure 1: Experimental Group Student Interview Code Cloud

Below is the code cloud obtained from the student interviews with the **control group**.

Figure 2: Control Group Student Interview Code Cloud

The results obtained from the qualitative data indicate that the experimental group's responses to questions about civic knowledge were more appropriate and reflect a greater level of knowledge. An examination of all subcodes revealed a higher number of "I don't know" subcodes in the control group compared to the experimental group. The subcodes provided by the students in the experimental group demonstrated greater diversity and the ability to generate appropriate subcodes compared to the control group.

4. Discussion and Interpretation

In the study, the responses to the YDKÖÖ were scored between a minimum of 2 and a maximum of 4 in the experimental group. According to the data collection tool's range, the highest mean for the second item was 3.20 (quite a lot), and the lowest for the first item was 3.53 (a lot). This shows that the students in the experimental group had quite high scores on creativity and personality traits. 60 people answered the scale in the control group. The scale questions received a minimum score of 1 and a maximum of 3. According to the data collection tool's range, the highest mean for the 10th and 14th items was 2.9167 (quite a lot), and the lowest for the second item was 2.3000 (a little). These findings indicate that the creative thinking and personality traits of the students in the control group were lower compared to the experimental group. The storytelling method allows students to look at events from different perspectives, generate original ideas, and express their individual characteristics (Ellis & Brewster, 2014). Runco and Acar (2012) stated in their study that traditional teaching methods are not sufficiently effective in developing students' creative thinking skills and individual characteristics. These findings are parallel with the findings obtained in this research. When the effect of the gender variable on the level of creative thinking is examined, it is observed that there is no statistical difference in the studies conducted (Kaufman, 2012 & Gezer, 2012).

Baer, 2008, examined the findings of various studies in his study on creativity and gender differences and proposed various models to better understand these results, stating that the gender variable is not effective in this context. Our findings are similar to this literature, and it is thought that the gender variable does not affect creativity. Kazu's 2022 study shows that there is no correlation between age and creative thinking levels. The study shows that the ages of the mother and father do not affect the level of creativity. Therefore, it can be concluded that the mother's age and father's age do not affect creativity levels, as is the case with the gender variable. When examining the mother's and father's educational status, a study in the literature by Çeliköz (2017) found that those with mothers with a bachelor's degree or higher had significantly higher creativity levels than those with a high school education or less, and those with fathers with a bachelor's degree or higher had significantly higher creativity levels than those with fathers with a high school education or less. This is thought to be due to the ease of access to education, especially in urban centers, and the ease of access to up-to-date education available to all segments of the population studied, regardless of education level. In his 2017 study, Çeliköz emphasized that socioeconomic status was not associated with creativity levels. This result is thought to be closely related to the characteristics of the sample population. A review of the literature revealed very limited studies examining citizenship education knowledge levels using the storytelling method. Aktın (2017) conducted a field trip in which children were brought to a museum after receiving museum education. It was noted that the children followed the museum tour with interest and attention. In other words, the goal was achieved by organizing the preschool period with field trips and actively learning the children.

Raven's (2010) study involved 150 students using various tools to create stories aimed at building a sense of self. The stories included cultural themes rooted in family traditions. In this study, it was observed that the process of creating stories resulted in higher self-esteem and national identity esteem in students who received storytelling. Storytelling activities foster positive feelings about reading in children in later years (Zembat & Yurtsever, 2002). The study also found that children's compliance with Turkish rules was higher with the storytelling method. In these studies, participants in the experimental group were read stories one week out of every month for a total of four weeks, and various activities were implemented before and after reading the stories. At the end of the study, pre-test and post-test measurements were conducted before and after the study to evaluate the impact of the storytelling method on students' grammar learning. While no statistically significant difference was observed between the two groups in the pre-test results, significant differences were identified between the experimental and control groups in the post-test analyses. These findings indicate that the storytelling method has a positive effect on grammar learning. In our study, the level of Turkish grammar use was thought to be higher in the experimental group using the storytelling method. In Kordaki's (2007) study, many researchers emphasized the reconnection to both nature and culture as necessary for a sustainable future. In Raven's (2010) study, a total of 150 students used a variety of tools to create stories, a topic aimed at building a sense of self. The stories covered topics ranging from family traditions to cultural icons. A case study examined this initiative, finding that the process of creating digital stories increased students' self-esteem and national identity esteem in students who used this storytelling method. Yazıcı (2022) noted that children mostly focused on Atatürk's military aspect. It was determined that children primarily focused on Atatürk's savior identity and believed that if he had been, we would not have been able to become an independent country and would be constantly at war.

Mokhtar (2011), investigating the effect of the storytelling method on communication skills, reported that the storytelling method increased creativity and communication skills in a study conducted with 80 participants from an experimental and control group. Aktın (2017) conducted a field trip in which preschoolers received museum education and a museum visit. It was observed that the children behaved attentively and showed interest during the museum visit. In a study examining the effect of the storytelling method on language use, the language use skills of the students who used the storytelling method improved along with the post-test they received. Kordaki (2017) reported that the environmental awareness and knowledge of environmental degradation of the children who used the storytelling method improved. Zort (2023) argues that cultural characteristics can be transferred through the narrative method and emphasizes the influence of families and teachers in this transfer. In the qualitative results of the study, the responses obtained through civic awareness in the experimental group students using the narrative method were analyzed using a code-subcode model compared to the responses of the control group students. The results indicate that the code-subcode model created by the responses of the experimental group participants not

only provided a greater variety of answers to the questions, but also contained more appropriate subcodes, and there were very few subcode options, such as "I don't know," that failed to generate ideas. These results suggest that the level of civic knowledge was higher in the experimental group. When considered carefully, it can be seen that the students in the experimental group were able to provide a wider variety of appropriate answers to the questions. This result suggests that the level of civic knowledge in the experimental group was higher, and that the participants in the experimental group had a higher level of creative thinking, supporting our results.

When we analyze the quantitative and qualitative data together, we see that both creativity levels and civic awareness are higher in the group of children who were provided with information through the storytelling method. This demonstrates that the storytelling method contributes positively to children's creativity and citizenship levels in a fun, effective, and effective way. In this regard, the effective use of the storytelling method demonstrates that it is an appropriate learning method. Creatively thinking children's developed problem-solving, empathy, and ability to view events from different perspectives positively impacts their social roles and responsibilities (Can Yaşar and Aral, 2010). Individuals who express themselves more easily adapt to social life and its rules. By becoming aware of their own rights and the democratic rights of those around them, they acquire empathy and multifaceted thinking skills (Kayaalp, 2021). Children with developed creative thinking skills are curious, ask questions, are interested in their environment, and grow up as responsible individuals. Children with high creative thinking skills are sensitive to their environment, aware of the problems in their environment, and think solution-oriented to the problems they encounter (Yazar, 2007, Can Yaşar and Aral, 2010).

When quantitative and qualitative data are interpreted together, it appears that both creative thinking levels and citizenship education levels were higher in the experimental group where the storytelling method was used. When we examine the responses to the citizenship education code-subcode model in the experimental group with higher creative thinking scores, we see that they were able to generate more appropriate and diverse responses. This suggests that children with higher creative thinking scores have a higher level of knowledge about citizenship education.

5. Conclusion

When quantitative and qualitative data are interpreted together, it appears that both creative thinking levels and citizenship education levels were higher in the experimental group where the storytelling method was used. When we examine the responses to the citizenship education code-subcode model in the experimental group with higher creative thinking scores, we see that they were able to generate more appropriate and diverse responses. This suggests that children with higher creative thinking scores have a higher level of knowledge about citizenship education.

5.1 Suggestions

Some suggestions regarding the results of the study include:

1) Teachers' contributions to creative thinking skills could be investigated.
2) Families' civic knowledge could be investigated.
3) Creative thinking and citizenship education could also be examined in terms of other activities included in the preschool curriculum.
4) The research could be applied to different schools and grade levels.

Data Availability Statement

This research was produced from a MEd master's thesis. The thesis data and the entire text can be accessed at tez.yok.gov.tr.

Ethical Approval

Ethical permission with the number 2024-508 was obtained from Ondokuz Mayis University, the social and humanities ethics committee, for this research on 31.05.2024.

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Conflict of Interest Statement

The authors declare no conflicts of interest.

About the Author(s)

İsmail Gelen is a Professor Dr. in the field of Curriculum and Instruction. His primary research interests include 21st-century skills, thinking education, values education, teacher education, instructional principles and methods, curriculum development, and curriculum evaluation. He has contributed to scientific studies by undertaking academic roles across many continents beyond Türkiye. He has also served as a reviewer and editor for both national and international journals. He has authored more than 50 articles, 14 of which have been published in SSCI-indexed journals, presented more than 50 papers at national and international conferences, and contributed to 21 books and book chapters. In addition, he has been involved in 27 national and international projects and has supervised 19 graduate theses, while also serving as a jury member. He has participated actively in numerous panels, seminars, conferences, councils, radio and television

programs, and scientific meetings. As of January 24, 2025, his Google Scholar citations total 2,245, and his i10-index is 30. In Türkiye, he has held roles in institutions such as TÜBİTAK, YÖKAK, EPDAD, and the Ministry of National Education (MoNE). Proficient in English and Ottoman Turkish, İsmail Gelen continues his academic work at Ondokuz Mayıs University as Professor Dr. and Head of the Department of Curriculum and Instruction within the Department of Educational Sciences.
Email: ismailgelen@omu.edu.tr, profdrismailgelen@gmail.com
ORCID: https://orcid.org/0000-0001-6669-8702
Institutional Profile: https://avesis.omu.edu.tr/ismailgelen

Ayşe Acici Duran is a graduated from Curriculum and Instruction. He completed his undergraduate education in the preschool education program. She is currently working as a Preschool Teacher and Education & Instruction expert affiliated with the Ministry of Education in Amasya province.
Email: accayse@gmail.com
ORCID: https://orcid.org/0009-0006-9433-3552
Institutional Profile: https://770476.meb.k12.tr/idari_personel/ayseaciciduran_2933379.html

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