SUPPORTİNG THE WRİTİNG SKİLLS OF PRİMARY SCHOOL THİRD GRADE GİFTED STUDENTS WİTH ACTİVİTY-BASED DİGİTAL STORYTELLİNG: ACTİON RESEARCH

Tuğba Tetik[1i],
Derya Arslan Özer[2]
[1]Classroom Teacher,
Ministry of Education,
Burdur, Türkiye
orcid.org/0000-0002-5060-043X
[2]Prof. Dr.,
Burdur Mehmet Akif Ersoy University,
Faculty of Education,
Burdur, Türkiye
orcid.org/0000-0002-4555-5435

Abstract:

The aim of this research is to find out how activity-based digital storytelling affects the writing and digital storytelling-making skills of gifted students. In this research, which is designed as an action research, the researcher was the practitioner and also the conductor of the research. The research was conducted in the first semester of the 2018-2019 academic year in the Science and Art Center, where talented students were studying. The study group consists of 7 gifted third-grade students who continue the support education program. The implementation of the action plan took 10 weeks. The data were collected by Student Information Form, 6 + 1 Analytical Writing and Evaluation Scale, Digital Storytelling Evaluation Rubric, interview forms, researcher and student diary. According to the results of the study, the action plan applied improved the writing skills of the students. It was observed that the writing skills of the students improved according to the scores of the students during the pre-evaluation and final evaluation and application process. It was seen that the digital story formation skills of the students improved during the pre-evaluation and final evaluation and application process. According to the opinions of the students, it was determined that with the activity-based digital storytelling activities, the students learned how to write the text types, they liked writing and they found the studies entertaining and these studies improved their writing skills. In addition, it was that writing activities make writing easier, develop imagination, and digital storytelling studies also helped to see and correct errors in writing, and to write more attentive and carefully. In this study, in which action research was used, as the results are not generalized, the activity-based digital storytelling studies can be applied

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[i] Correspondence: email tugbaheybeli@hotmail.com

with different methods and the results can be investigated. Additionally, application oriented research can be increased to improve the writing skills of gifted students.

Keywords: action research, digital storytelling, gifted students, writing skills

1. Introduction

The people who guide the history, and contribute to the development of science and technology and humanity are undoubtedly people with special talents. The people who benefit a society so well are those who have superior brain power in that society (Çağlar, 2004). Compared to their peers, gifted students develop significantly from early childhood in many areas such as language development, mental development, and social-emotional characteristics. In order to meet the special education and social-emotional needs of gifted students, it is necessary to provide a learning environment (NAGC, 2006) with their interests, strengths, defined skills, and individual learning experiences and to create a differentiated program (Chan, 2001; Clark, 2002; Johnsen, 2004; VanTassel-Baska, 2001). Students who are identified as gifted receive education in Science and Art Centers (BİLSEM) to develop their existing potential. BİLSEMs continue to be formal education institutions; it is an institution opened to provide support education services to students with special talents in general mental, visual arts or musical talents in order to improve their abilities and enable them to use their capacities at the highest level (MEB, 2021).

Although the language skills and vocabulary use of gifted students develop at an early age compared to their peers, many gifted students also have problems with their writing skills. These problems are; deciding on writing subjects, transmitting their feelings and thoughts to writing in logical integrity, and conveying the message they want to give to the reader (Baum, Cooper & Neu, 2001; Friend, 2006). It is very important for gifted students to express themselves in writing and to use writing skills in communication so that they can reveal their potential (Sevim, Karabulut & Elkatmış, 2021).

Writing is an important tool for students to communicate their thoughts, feelings, and beliefs (Graham & Perin, 2007). Writing is the process of thinking, organizing ideas, writing, rethinking, rearranging and rewriting. Babni (2018) deals with the writing process in six stages: pre-writing (pre-writing preparation), drafting, feedback, revising, editing, and publishing (sharing). In order to improve the writing skills of gifted students, it is necessary to prepare students to think and write for pre-writing, show students good examples of writing, and provide students with a task-oriented and learner-centred learning environment that develops creativity in writing, inspires a desire to learn (Brown-Anfelouss, 2012; Bruning & Horn, 2000). Informing students about writing, doing daily short writing activities that encourage them to write regularly, writing in different genres, breaking down difficult and complex writing tasks, and giving feedback to students about their writing improves students' writing skills.

Today, students have problems in developing their writing skills (Dacusan et al., 2021). In today's age, teachers should be able to integrate technology into writing activities in order to be successful in teaching writing skills (Syam, 2022). Technology is a tool for curriculum differentiation for gifted students (Sheffield, 2007). One of the transformational approaches that transform traditional storytelling into a 21st-century environment using digital technology is digital storytelling (Green, 2011; Kearney & Schuck, 2006; LoBello, 2015; Rahimi & Yadollahi, 2017; Shemy, 2021). Digital storytelling is the modern version of traditional storytelling adapted to the present day by using multimedia tools such as sound, picture, video, and music (Dreon, Kerper & Landis, 2011; Normann, 2011; Kearney & Schuck, 2006; Reinders, 2011; Robin, 2008).

There are seven elements of digital storytelling; 1.point of view, 2.dramatic question, 3.emotional content, 4.the gift of your voice, 5.power of music, 6.economy and 7.pacing (Bull & Kajder, 2004; Fasi, 2011; Lambert, 2006; Robin, 2006; Sylvester & Greenidge, 2009). According to Bull and Kajder (2004), items 1-4 of the Seven Elements of Digital Storytelling come to the fore in the writing and planning phase, and items 5-7 in the making phase. During the writing and planning phase; students prepare the scenario of the story, make the necessary arrangements with the opinions of their friends and teachers, and prepare the storyboard. In this way, it is decided at what stage of the digital story will be told and how it will appear. After the script and storyboard are prepared, the digital story is completed using video editing tools to make the digital story.

Digital storytelling gives students the chance to write to a real audience, helping them understand that the main purpose of writing is to convey a message to the audience. This process helps students develop their writing skills (Daniels & Bizar, 2005; Foley, 2013). Placing the events in a logical order during the making of the digital story contributes to their planning and development of the writing process (Foley, 2013; Sylvester & Greenidge, 2009; Xu & Ahn, 2011). In addition, digital storytelling helps students write more effectively by enabling the visualization of writing (Jakes & Brennan, 2005). Writing in a digitally multi-dimensional environment provides further opportunities for students to focus more on the writing process, helping them develop their writing skills (Ciekanski & Chanier, 2008).

Digital storytelling provides a powerful environment for students to develop their writing skills (Coventry & Oppermann, 2009; Robin, 2008; Suyeyasu, 2010; Xu, Park, & Baek, 2011). The first step in making a digital story begins with writing text and making a storyboard (Kajder, Bull, & Albaugh, 2005; Sandars, Murray, & McPherson, 2009). While making digital stories, students spend more time in the writing phase and are involved in the writing process (Raymond, 2008). For this reason, writing text is very important in making digital stories (Miller, 2010). The prerequisite for making a quality digital story is a qualified text writing process.

When the literature on writing skills is examined, the studies conducted are generally in the form of stories (Aktaş, 2019; Baki, 2015; Campbell, 2012; Çıralı, 2014; Davis, 2005; Green, 2011; Kajder, 2004; Rong & Noor, 2019; Xin, 2013; Yamaç, 2015).

Bruning and Horn (2000) state that students should be encouraged to write in different genres to increase their interest in writing. In this study, five types of text-writing activities, including tales, stories, interviews, poetry, and informative texts, were made to help students create their own texts. In addition, writing activities were integrated with technology and completed with digital storytelling activities. When the literature on the use of digital storytelling in the development of writing skills is examined it is seen that digital storytelling improves writing skills (Aktaş, 2019; Baki, 2015; Baki & Feyzioğlu, 2017; Castillo-Cuesta et al., 2021; Chuang et al., 2013; Çıralı, 2014; Dayan, 2017; Demir & Kılıçkıran, 2018; Fitri, Husnawadi & Harianingsih, 2021; Foley, 2013; Gider, 2019; Gunawan, 2019; Gürsoy, 2021; Haşlaman, 2017; Özüdoğru & Çakır, 2020; Rahimi & Yadollahi, 2017; Riani, Husnawadi & Syarifudin, 2021; Rong & Noor, 2019; Saunders, 2014; Sudarmaji, Mulyana & Karsiyah, 2020; Tanrıkulu, 2020; Tarigan & Liana, 2018; Xin, 2013; Yamaç, 2015; Yamaç & Ulusoy, 2016; Yılmaz et al., 2017). In order to develop the writing skills of gifted students, it is thought that there is a need for studies that prepare students to write according to their interests, abilities and levels and make them love writing and integrate it with technology. For this purpose, activity-based writing and digital storytelling are considered as a whole and named as activity-based digital storytelling. In this context, activity-based digital storytelling activities were prepared based on the activity-based learning approach (Kuyate, 2019), in which students actively participate in the learning process instead of passive information receptors. The activities utilized by activity-based learning can contribute to the permanence of learning, to develop a positive attitude (Camci, 2012) toward the course by students. This research aims to reveal how activity-based digital storytelling affects the writing skills of third-grade gifted students who attend the support training program. For this purpose, the following questions were searched for an answer.

1) What are the levels of the pre-application, the application process, and the post-application writing skills of students in activity-based digital storytelling activities prepared for gifted students?
2) What are the levels of the pre-application, the application process, and the post-application digital story-making skills of students in digital storytelling activities prepared for gifted students?
3) What are the opinions of gifted students on activity-based writing activities?

2. Material and Methods

The research was designed as an action research. As a result of the observations of the students in the lessons by the researcher who conducted the research, it was observed that some students were unsuccessful in writing compared to other fields, they had difficulty in expressing themselves in writing, and were reluctant to write. The researcher aimed to find a solution to this problem. She encountered in the lessons and improved her teaching activities. For this reason, individual teacher research was preferred from

the types of action research. Ferrance (2000) explains individual teacher research as research done by a teacher who investigates a problem in his/her classroom individually.

2.1 Research Group

The research group consists of 7 third-grade gifted students who continue at the Science and Art Center where gifted students study in the Mediterranean region city center during the first semester of the 2018-2019 academic year. At BİLSEM, students participate in a five-stage training program: Adaptation, Support Education, Recognizing Individual Talents (BYF), Developing Special Talents (ÖYG) and Project. This research was conducted with students attending the Support Education Program. The development of writing skills starts in primary school and continues throughout their education life according to the development, interests and needs of the students. Henshon (2005) stated that gifted students need help in the development of their writing skills. The reason for choosing this group for the research is to examine the development of writing skills of gifted primary school third-grade students. The criterion sampling method was used in the research. As a criterion, third-grade gifted students who continued the support training program were determined. In the research, the student names were coded as "S1, S2". The demographic information of the students who constitute the study group of the research was given in Table 1.

Table 1: The Demographic Information of Students

Features		n
Gender	Female	4
	Male	3
Age	9 years	6
	10 years	1

When Table 1 is examined, it is seen that 4 of the study group students are girls and 3 are boys, 6 of the students are 9 years old and 1 is 10 years old.

2.2 Data Collection Tools

In action research, data triangulation by systematically collecting data in different times and places in a way that supports each other provides a better understanding of the scope of events in the classroom or school (Ferrance, 2000; Kuzu, 2009; Uzuner, 2005). Student information form, 6+1 Analytical Writing and Evaluation Scale, Digital Storytelling Assessment Rubric, Semi-Structured Interview Form, student diary and researcher diary were used to collect data in the research.

2.2.1 Student Information Form

"Student Information Form" was prepared by the researcher in order to collect information about the students before the application. In this form, there are questions about the students' gender, age, and the educational status of their parents.

2.2.2 6+1 Analytical Writing and Evaluation Scale

"6+1 Analytical Writing and Evaluation Scale" was used to evaluate the general quality of the texts written by the students. The scale developed by researchers at the Northwest Regional Education Laboratory (NWREL) in the USA in the 1980s was adapted into Turkish by Özkara (2007). There are seven sub-dimensions in the scale to evaluate the quality of the texts: ideas, organization, voice, word choice, sentence fluency, convention and presentation. The texts written by the students during the pre-application and the post-application were evaluated by giving 5, 3 and 1 points according to the features found in the 6+1 Analytical Writing and Evaluation Scale.

2.2.3 Digital Storytelling Assessment Rubric

"Digital Storytelling Evaluation Rubric" was developed by the researcher in order to evaluate the quality of the digital stories made by the students. The digital stories made by the students before the application, during the application process and after the application were evaluated with this rubric. During the rubric development stage, scales and rubrics developed in the literature were examined (Barrett, 2006; Demirer, 2013; Ohler, 2008; Robin, 2006; Robin, 2008; Robin, 2016; Sadik, 2008; Sylvester and Greenidge, 2009; Yamaç, 2015). The developed draft assessment rubric was applied to 25 gifted students attending the Support Education Program as a pilot application in the 2017-2018 academic year. For the draft evaluation rubric, the opinions of 9 experts who are competent in their fields were consulted. 14 items in the draft form were increased to 17 items in line with expert opinions, and some items were edited. There are 4 sub-dimensions in the developed rubric: technical, compliance, content, legal/cost. There are sub-dimensions such as very good (3 points), good (2 points) and should be improved (1 point) to evaluate the quality of digital stories, and the performance corresponding to that score was defined in detail for scoring each sub-dimension. A minimum of 17 points and a maximum of 51 points are taken from the rubric.

2.2.4 Semi-Structured Interview Form

Within the scope of the research, two different semi-structured interview forms, the pre-application and the post-application forms, were used. Before the application, the "Pre-Application Student Interview Form" was developed in order to determine the knowledge, feelings and thoughts of the students about text types and text writing. After the application, "Activity Based Writing Study Semi-Structured Interview Form" was developed by the researcher in order to have detailed information about the students' writing activities, the writing process and their feelings and thoughts related to this process.

During the preparation of the interview forms, the opinions of 7 experts were applied including a lecturer and two teachers who are experts in the field of classroom education, an expert lecturer in the field of education programs and teaching, an expert lecturer in the field of the guidance and psychological counseling, and two teachers who are experts in the field of Turkish education. The experts evaluated the questions of the

interview forms in terms of content, scope, consistency, suitability for student level, clarity and intelligibility. The semi-structured interview form was finalized by making the necessary arrangements on the interview questions in line with the expert opinions.

2.2.5 Researcher's Diary and Student's Diary

A "researcher's diary" was kept by the researcher in order to record the process from the pre-application preparation process to the end of the application process. At the end of each activity, the students were asked to write down the activity and their feelings and thoughts about the activity in the diaries given to them.

2.3 Research Process and Action Plan

The research process was carried out as a self-reflective cycle that continues as planning, acting, observing, reflecting, replanning, acting, observing and reflecting, as stated by Kemmis and McTaggart (2005). In this cycle, the stages overlap, and each process contributes to the development of the next stage. In this process, the researcher should carefully research the subject, construct it systematically, and take into account the validity process and ethical rules (Stringer, 2007).

In the first stage of the research process, the researcher observed that some of her students didn't like writing, were reluctant to write, and had difficulty expressing themselves in the writing-related sections of the activities. In this context, the research subject and the problem were determined and the literature was reviewed in order to find a solution to the problem. According to the results, the students should have the necessary infrastructure to express their feelings and thoughts effectively, and it is necessary to make mental preparation by activating the preliminary information about the subject and genre to be written. Effective and permanent writing activities are ensured through qualified and functional preliminary information (Güneş, 2007; Ungan, 2007). Tekşan (2001) emphasized that students should be prepared for writing by having students do preliminary preparation studies before writing. He explained these preparatory activities as follows: 1) students should be encouraged to write, 2) students should be informed about writing topics, their prior knowledge should be activated, 3) students' imagination should be developed and their creativity should be revealed. With the developments in the field of writing, it is aimed to increase the students' interest and desire for writing by integrating writing activities with technology.

In order to solve the research problem, activity-based digital storytelling activities were prepared to enable the students to have the necessary knowledge and skills in writing and assessment instruments were determined. In the 2017-2018 academic year, a pilot application was conducted with the third-year students who continued the support training program and the process was observed. The data collected during the pilot application process were analyzed, and the activities implemented and the suitability of the assessment instruments was evaluated. It was observed that the duration of some activities was not sufficient, and some activities did not attract the attention of the students or were not suitable for their level. In addition, at the end of each activity, the

students' opinions, likes and observations of the researcher were recorded and the activities were evaluated. From this point of view, it was decided to remove some activities, correct some activities and put them into real practice, and an evaluation was made. As a result of the evaluation, the reflection stage was carried out by making the necessary arrangements in the action plan. In this direction, an action plan was prepared by developing a curriculum for the solution of the research problem. The action plan of the research is given in Table 2.

Table 2: The Action Plan of the Research

Week	Class Hours	Activity
1. Week	5 class hours	Activity Based Writing (Tale Writing)
2. Week	5 class hours	Digital Storytelling Activity
3. Week	5 class hours	Activity Based Writing (Story Writing)
4. Week	5 class hours	Digital Storytelling Activity
5. Week	5 class hours	Activity Based Writing (Writing an Interview)
6. Week	5 class hours	Digital Storytelling Activity
7. Week	5 class hours	Activity Based Writing (Writing Poetry)
8. Week	5 class hours	Digital Storytelling Activity
9. Week	5 class hours	Activity Based Writing (Informative Text Writing)
10. Week	5 class hours	Digital Storytelling Activity

The action plan of the research consists of a ten-week process with one type of text (tale, story, interview, poem and informative text) each week and digital story-making the next week. Before the action (application) was carried out, working groups were formed, parents and students were informed about the application, and interviews and pre-evaluations were made. The application was carried out in line with the action plan. In the application phase, the effect of the activity-based digital storytelling developed for the students on the writing and digital story-making skills of the gifted students was examined. During the application process, the activities were evaluated and arrangements were made in the action plan where necessary. In addition, the process was recorded in diaries kept by the researcher. After the application, the data were collected by making final evaluations and interviews, and the evaluation was made by analyzing. Afterwards, the action plan was evaluated and the desired and undesired aspects of the action were evaluated by reflecting.

2.4 Analysis of Data
In the study, the data were collected through 6+1 Analytical Writing and Evaluation Scale, Digital Storytelling Assessment Rubric, interview forms, and researcher and student diaries. The analysis of the collected data was examined under two headings: the analysis of qualitative data and the analysis of quantitative data.

2.4.1 Analysis of Qualitative Data

In order to get their knowledge, feelings and thoughts about writing at the beginning of the application process, the gifted students were interviewed at the end of the application process to get the students' opinions about the activity-based writing activities. In the interviews with the students, audio recordings were taken and notes were kept. The audio recordings were transferred to the computer environment and written in the analysis process. The content analysis was used in the analysis of the data obtained from the semi-structured interview form. The data obtained from the semi-structured interview form were first coded by the researcher and the Turkish teacher, and then the themes were obtained. Inter-rater reliability was calculated with the formula developed by Miles and Huberman. The inter-rater reliability was calculated as 0.96. It was given in the findings section by making direct quotations from the researcher's diary and the student diaries.

2.4.2 Analysis of Quantitative Data

In the quantitative dimension of the research, the texts written by the students and the digital stories made by the students were analyzed.

With the 6+1 Analytical Writing and Evaluation Scale, the pre-evaluation, the application process and the texts written by the students in the final evaluation were evaluated. Forty-nine texts written by the students in the pre-assessment, application process and final evaluation were evaluated by the researcher, two Turkish teachers and a primary school teacher. Inter-rater reliability was calculated with the following formula developed by Miles and Huberman: "Reliability = Number of Agreements / Number of Agreements + Number of Disagreements". According to the formula, values above 70% are considered reliable (Miles and Huberman, 1994). Inter-rater reliability was calculated as 0.87.

In addition to the total score evaluation, a detailed description was made by including the direct quotations from the students' writings according to the seven sub-dimensions (ideas, organization, voice, word choice, sentence fluency, conventions, presentation) in the 6+1 Analytical Writing and Evaluation Scale. For example, the S4 got 5 points from "Sentence Fluency", the sub-dimension of the scale, in the final evaluation. The following evaluations were made with the author's expressions *"Hakan and Ömer were confident, they did not give up even if the days passed and they finished it in two months because the copying machina took a long time. They reproduced it with a copying machina and sold it. Hakan and Ömer earned money from this business, and with their other knowledge, they produced and sold other assistants, robots that pass lines and make coffee."*: These sentences were carefully constructed to enrich the meaning and emphasize the importance, and the sentences were varied both in length and structure.

With the Digital Storytelling Evaluation Rubric, the pre-evaluation, the application process and the digital stories made by the students in the final evaluation were evaluated. The digital stories made by the students were evaluated by a Turkish teacher

and an Information Technologies teacher. Inter-rater reliability was calculated with the formula developed by Miles and Huberman. Inter-rater reliability was calculated as 0.94.

2.4.3 Role of the Researcher

The researcher prepared the curriculum and action plan and developed data collection tools (student information form, digital storytelling assessment rubric, semi-structured interview form). Within the scope of the research, the researcher prepared fifteen activity-based digital storytelling activities and applied them as a pilot application. The researcher observed the students in this process and took notes about the application process in her diary. During the application process, the researcher also applied the activities as a practitioner, observed the students, took the necessary notes to her diary, made interviews and made audio recordings. Again, in this process, the activities were evaluated and the action plan was reviewed by the academicians who are experts in the field, and the implementation was continued. The researcher took an active role in every stage of the application. After the application, the data were interpreted by analyzing and the research was reported by the researcher.

2.4.4 Validity and Reliability of the Research

Lincoln and Guba (1985) propose a number of strategies to ensure validity and reliability in action research, which is one of the qualitative research methods. These strategies are credibility, transferability, dependability and confirmability (cited in Stringer, 2007). It is thought that the researcher's constant interaction with the students while practicing, having the opportunity to observe the students and taking notes of their observations in the researcher's diary contributed to the credibility of the research. In addition, in order to ensure the credibility of the research, the data obtained by collecting the interview, researcher, student diary and quantitative data together during the application process were compared with each other, interpreted and the adequacy of answering the research questions was questioned.
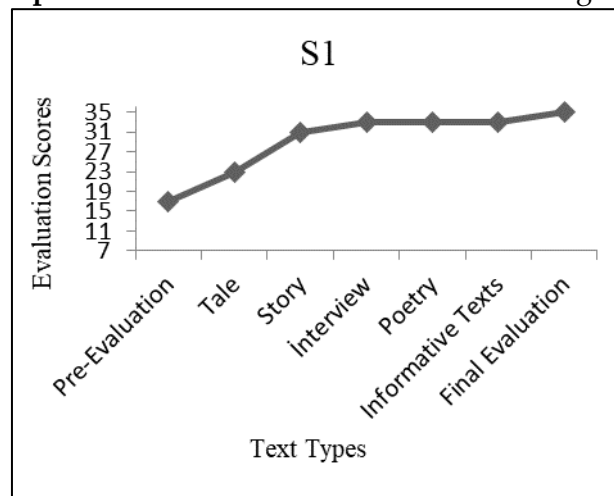
It is thought that the transferability of the research is ensured by presenting the data in detail and explaining the data collection and analysis stages in detail by quoting directly from the students' texts, students' digital stories, student diaries and semi-structured interview forms in the research. It is thought that the consistency of the research is ensured by conducting similar interviews with students and recording the interview process by recording audio during interviews, coding, conceptualizing the data, and evaluating an expert in the stages of associating the data with the results. It is thought that the confirmability of the research is ensured by evaluating the data obtained in the research by independent experts, preparing of the activities, performing the inter-coder reliability study, being impartial and objective at every stage of the research and confirming the results by comparing them with the data.
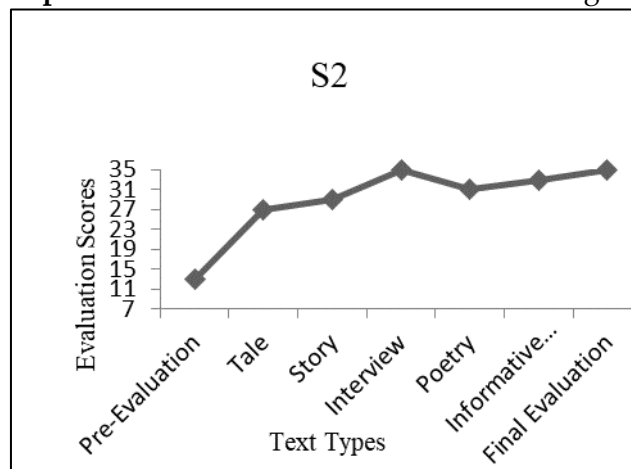
3. Results

3.1 Results of the First Sub-Problem

The pre-evaluation (story), the tale, story, interview, poetry, informative text types in the application process and final evaluation (story) scores of the writing skills of the gifted students were given and interpreted in graphics at each student level. It was examined in detail through the S4 who showed the most improvement between the pre-evaluation and the final evaluation.

Graph 1: The Evaluation Scores of S1's Writing Skill

When Graph 1 is examined, it is seen that S1 received 17 scores in the pre-evaluation, in the process 23 in the tale, 31 in the story, 33 in the interview, 33 in the poetry, 33 in the informative and 35 scores in the final evaluation. In general, it can be said that the writing skill of S1 has improved.

Graph 2: The Evaluation Scores of S2's Writing Skill

When Graph 2 is examined, it is seen that S2 received 13 scores in the pre-evaluation, in the process 27 in the tale, 29 in the story, 35 in the interview, 31 in the
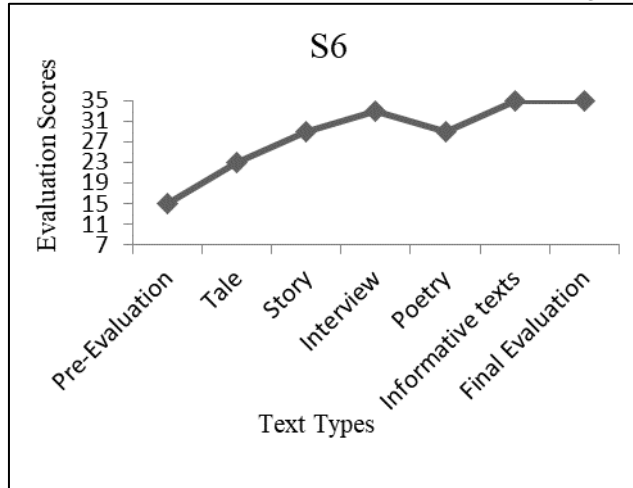
poetry, 33 in the informative and 35 scores in the final evaluation. In general, it can be said that the writing skill of S2 has improved.

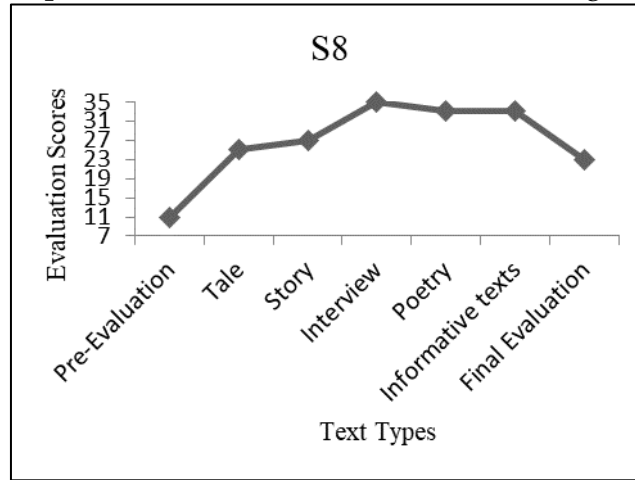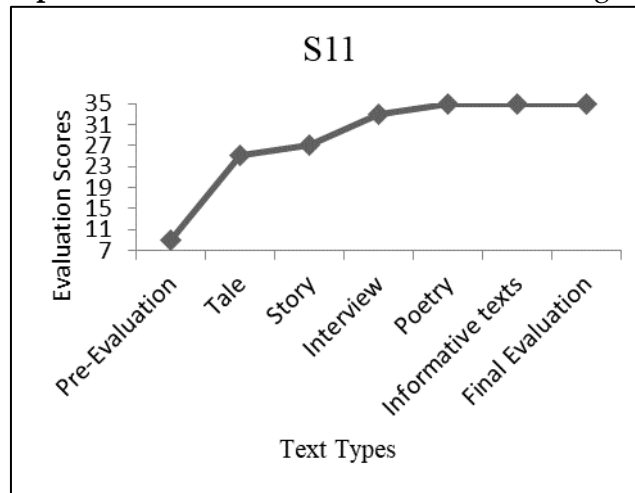**Graph 3:** The Evaluation Scores of S5's Writing Skill

When Graph 3 is examined, it is seen that S5 received 7 scores in the pre-evaluation, in the process 11 in the tale, 21 in the story, 35 in the interview, 29 in the poetry, 35 in the informative and 33 scores in the final evaluation. In general, it can be said that the writing skill of S5 has improved.

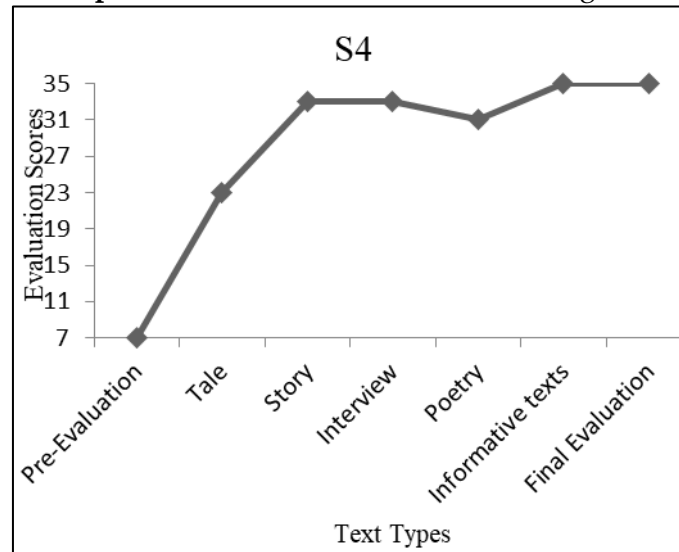**Graph 4**: The Evaluation Scores of S6's Writing Skill

When Graph 4 is examined, it is seen that S6 received 15 scores in the pre-evaluation, in the process 23 in the tale, 29 in the story, 33 in the interview, 29 in the poetry, 35 in the informative and 35 scores in the final evaluation. In general, it can be said that the writing skill of S6 has improved.

Graph 5: The Evaluation Scores of S8's Writing Skill

When Graph 5 is examined, it is seen that S8 received 11 scores in the pre-evaluation, in the process 25 in the tale, 27 in the story, 35 in the interview, 33 in the poetry, 35 in the informative and 23 scores in the final evaluation. In general, it can be said that the writing skill of S8 has improved.

Graph 6. The Evaluation Scores of S11's Writing Skill

When Graph 6 is examined, it is seen that S11 received 9 scores in the pre-evaluation, in the process 25 in the tale, 27 in the story, 33 in the interview, 35 in the poetry, 35 in the informative and 35 scores in the final evaluation. In general, it can be said that the writing skill of S11 has improved.

Graph 7: Evaluation Scores of S4's Writing Skill

When Graph 7 is examined, it is seen that S4 received 7 scores in the pre-evaluation, in the process 23 in the tale, 33 in the story, 33 in the interview, 31 in the poetry, 35 in the informative and 35 scores in the final evaluation. In general, it can be said that the writing skill of S4 has improved.

S4 scored 7 points in the pre-evaluation and 35 points in the final evaluation, so he became the student who showed the most improvement in terms of total points between the pre-evaluation and the final evaluation. For this reason, the story "Technology is Beautiful" written by S4 in the pre-evaluation and the story "Let's Love Technology" written in the final evaluation were described in detail.

Considering the story named "Technology is Beautiful" written by S4 in the pre-evaluation;

- Ideas: S4 got 1 point from the ideas sub-dimension. The author used the following expressions in his own text: "*Can and Mert are very interested in technology and they knew that it could be through cooperation and solidarity, so they had their mother buy all the tools and set to work to make them.*". According to the ideas sub-dimension of the scale, the information is limited, and not clear, and the length of the text is not sufficient for the development of the subject. The author did not begin by describing the subject in a meaningful and distinctive way.
- Organization: S4 got 1 point from the organization sub-dimension. The author entered the story with the statement "*Can and Mert are very interested in technology and they knew that it could be through cooperation and solidarity, so they had their mother buy all the tools and set to work to make them.*" and finished the conclusion partly by continuing with "*…They did research from the computer. Then by inventing a robot, they understood that technology was fun.*" "*They became the number of many knowledge and ideals and took Aziz Sancar as an example and he never forgot that he was a Turkish.*". According to the organization sub-dimension of the scale, the speed at which the expression passes is not appropriate, slowing down the author a lot while the

reader is fully focused on the text. The title used is irrelevant. Due to organizational problems, the reader cannot understand the main idea.

- Voice: S4 got 1 point from the voice sub-dimension. The author used the following expressions in his own text: "…*They did research from the computer. Then by inventing a robot, they understood that technology was fun.*" According to the voice sub-dimension of the scale, an explanatory and persuasive voice is not used in the sentence and the sentence is devoid of information. In terms of narration, the development of the subject has been very limited, and no point of view is clear.

- Word choice: S4 got 1 point from the word choice sub-dimension. The reader is not taken into account by the expression *"They became the number of many knowledge and ideals and took Aziz Sancar as an example and he never forgot that he was a Turkish."* in the text. According to the word choice sub-dimension of the scale, the language has been used incorrectly in such a way that the message to be given does not reach its goal. The words and phrases are so uncreative that they distort the meaning.

- Sentence fluency: S4 got 1 point from the sentence fluency sub-dimension. The author used the following expressions in his own text: "…*They did research from the computer. Then by inventing a robot, they understood that technology was fun.".* According to the sentence fluency sub-dimension of the scale, the sentences are complex, incomplete, irrelevant and unsuitable. The writing is not immersed, and the reader gets bored while reading it. The sentences are devoid of meaning. Even if the sentences are corrected without error, they don't come together meaningfully.

- Conventions: S4 got 1 point from the conventions sub-dimension. According to the conventions sub-dimension of the scale, conventions are not used or misused. Capitalization is random, and the very simple ones have the right usage. There is no carriage return, it is irregular or too much (at the beginning of each sentence) and it has nothing to do with the organization of the text.

- Presentation: S4 got 1 point from the presentation sub-dimension. According to the presentation sub-dimension of the scale, it is very difficult to read and understand the text because the letters are irregularly italicized, the shapes of the letters are inconsistent with each other or misspelled, and the space between the words is small or nonexistent. The use of spaces is very irregular and surprises the reader. There's little or no space on the paper that should be there.
  Considering the story of S4 in the latest review titled "Let's Love Technology",

- Ideas: S4 got 5 points from the ideas sub-dimension in the final evaluation. The author used the following expressions in his own text: *"He was going to build a robot vacuum cleaner for his mother because his mother was tired while cleaning the house. First, he learned how to do it and took his tool and bag and went to his father. His father showed him the necessary materials"*. According to the ideas sub-dimension of the scale, the narration and various details in the text give the reader important information

beyond what can be predicted. The author seems to have written the text based on knowledge and experience, the ideas new and original.
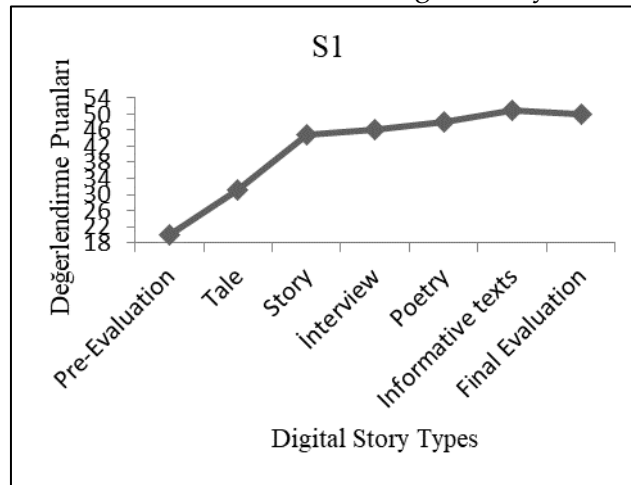
- Organization: S4 got 5 points from the organization sub-dimension in the final evaluation. The author started his own text with the introduction part *"Hakan was a tall, skillful boy who was in the 3rd grade, he used to take things apart and put them back on. His biggest dream was to build a robot. Because he was fond of inventors and loved the inventions made by inventors"* and ended it with a conclusion sentence in the form of *"The robot sales have started again. Both have grown. Hakan became the inventor, and Ömer became the assistant inventor with Hakan. Don't ever give up, pursue your dreams."*. According to the organization sub-dimension of the scale, the author knows when to take the topic slow and talk about the details, and when to pick it up and move on. The arrangements were well done. The title used is original and literally reflects the main idea. The organization is written in a fluent language without tiring the reader, and the structure of the text is suitable for the purpose and the target reader.

- Voice: S4 got 5 points from the voice sub-dimension in the final evaluation. The author carefully chose the explanatory and persuasive voice with these statements *"Hakan and his father went to the market to buy the stuff. They saw his friend Ömer before getting into the electronics store. He also came to the electronics store to fix his tablet. They went into the electronics store together. He told Ömer about the robot he was going to build when he got into Ömer was impressed because he likes technology, he asked if I could help you?."* The voice sub-dimension of the scale reflected the power of the subject by showing why these ideas should be known to the reader. The narrative of the text is personal and effective, prompting you to consider the ideas or perspectives of the author.

- Word choice: S4 got 5 points from the word choice sub-dimension in the final evaluation. The author used the following expressions in his own text: *"When he showed the robot to his mother, she was very happy because his mother would be less tired, she immediately kissed Hakan and Ömer and thanked him. Soon after, this news spread around everyone wanted that robot but there was a problem."*. According to the word choice sub-dimension of the scale, the author's language and expression are natural, effective and suitable for the reader. The language used enriches the meaning and facilitates understanding.

- Sentence fluency: S4 got 5 points from the sentence fluency sub-dimension in the final evaluation. The author used the following expressions in its own text: *"Hakan and Ömer trusted themselves, they did not give up even after days and months and they finished it in two months because the copying machine took a long time. They replicated and sold with a copying machina. Hakan and Ömer earned money from this business and with their other knowledge, they produced and sold other assistants, robots that cross lines and make coffee."*. According to the sentence fluency sub-dimension of the scale, the sentences are carefully constructed to enrich the meaning and emphasize their importance, and the sentences are varied both in length and structure.

- Conventions: S4 got 5 points from the conventions sub-dimension in the final evaluation. According to the conventions sub-dimension of the scale, word spelling is accurate in general and even when using difficult words. Conventions are accurate, even creative, guiding the reader. Carriage returns are smooth and strengthen the organization.
- Presentation: S4 got 5 points from the presentation sub-dimension in the final evaluation. According to the presentation sub-dimension of the scale, the letters have always been inclined smoothly, the letters are written clearly, the spaces between the words are always given properly and the text is easy to read. Leaving spaces on the page allows the readers to focus on the text and the subject without distracting them, and there are balanced blank spaces on the paper.

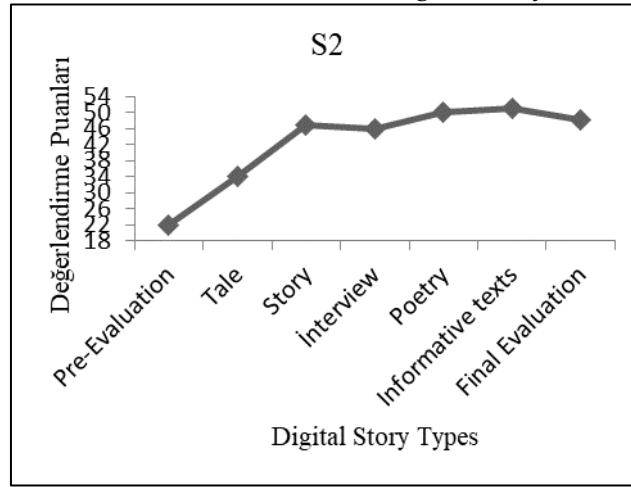## 3.2 Results of the Second Sub-Problem

The pre-evaluation (story), the tale, story, interview, poetry, informative text types in the application process and final evaluation (story) scores of the digital story-making skills of the gifted students were given and interpreted in graphics at each student level. It was examined in detail through the S6 who showed the most improvement between the pre-evaluation and the final evaluation.

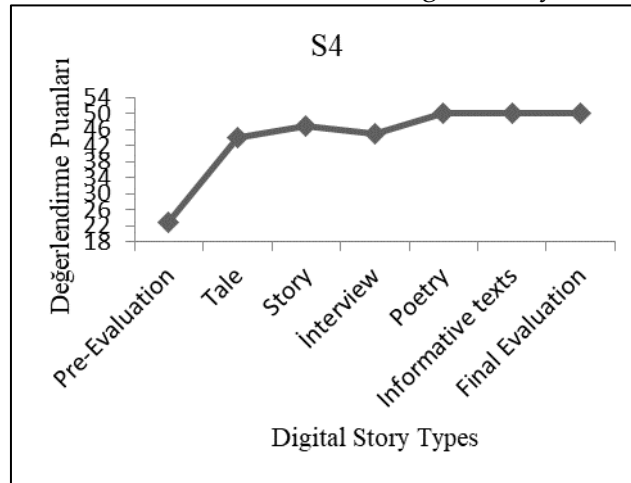**Graph 8:** Evaluation Scores of S1's Digital Story-Making Skill

When Graph 8 is examined, it is seen that S1 received 20 scores in the pre-evaluation, in the process 31 in the tale, 45 in the story, 46 in the interview, 48 in the poetry, 51 in the informative and 50 scores in the final evaluation. In general, it can be said that the digital story-making skill of S1 has improved.

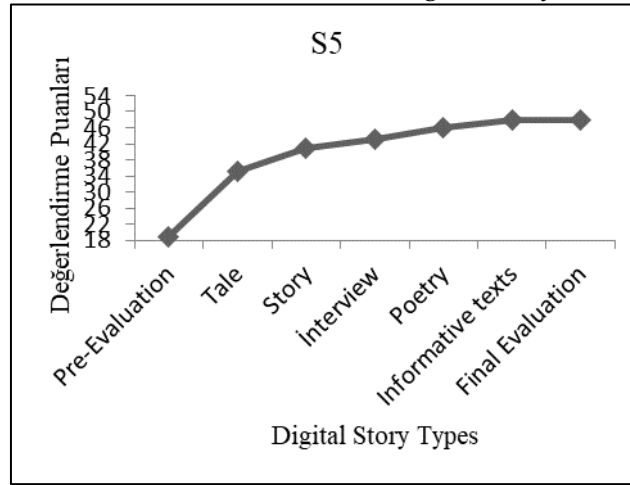**Graph 9:** Evaluation Scores of S2's Digital Story-Making Skill

When Graph 9 is examined, it is seen that S2 received 22 scores in the pre-evaluation, in the process 34 in the tale, 47 in the story, 46 in the interview, 50 in the poetry, 51 in the informative and 48 scores in the final evaluation. In general, it can be said that the digital story-making skill of S2 has improved.

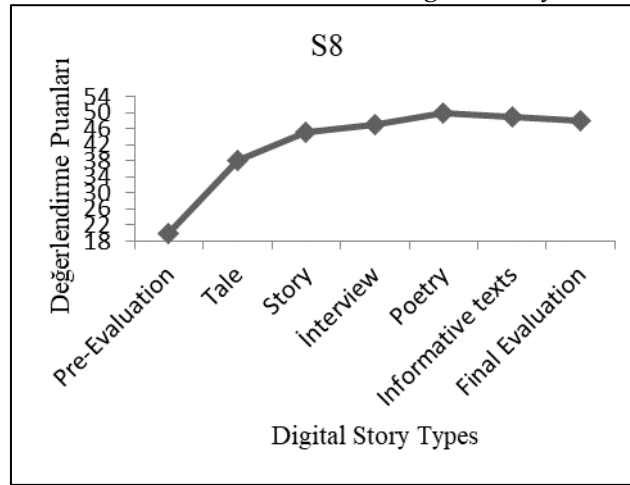**Graph 10:** Evaluation Scores of S4's Digital Story-Making Skill

When Graph 10 is examined, it is seen that S4 received 23 scores in the pre-evaluation, in the process 44 in the tale, 47 in the story, 45 in the interview, 50 in the poetry, 50 in the informative and 50 scores in the final evaluation. In general, it can be said that the digital story-making skill of S4 has improved.

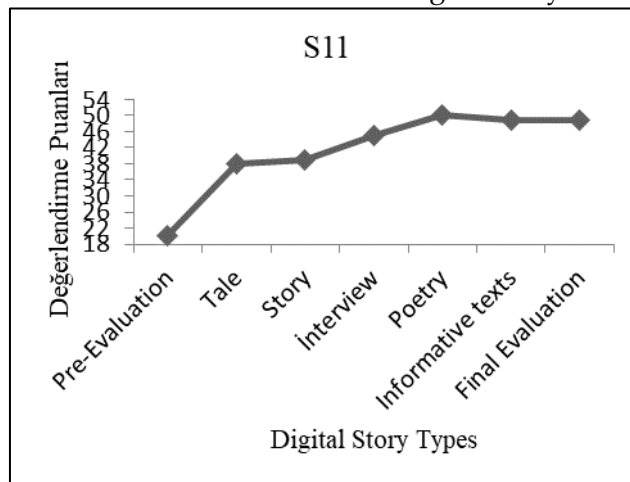**Graph 11**: Evaluation Scores of S5's Digital Story Making Skill

When Graph 11 is examined, it is seen that S5 received 19 scores in the pre-evaluation, in the process 35 in the tale, 41 in the story, 43 in the interview, 46 in the poetry, 48 in the informative and 48 scores in the final evaluation. In general, it can be said that the digital story-making skill of S5 has improved.

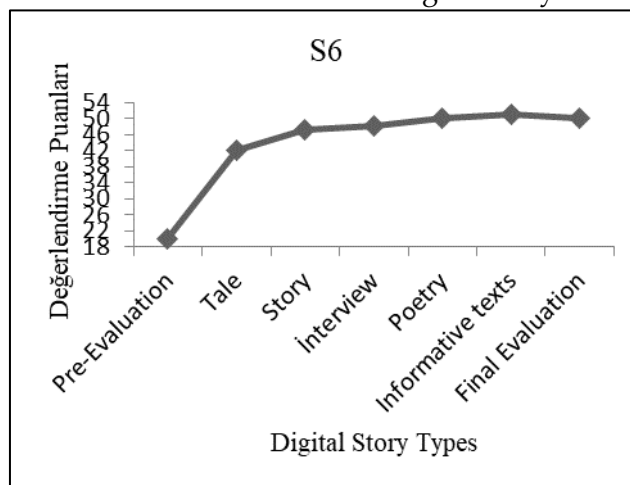**Graph 12:** Evaluation Scores of S8's Digital Story Making Skill

When Graph 12 is examined, it is seen that S8 received 20 scores in the pre-evaluation, in the process 38 in the tale, 45 in the story, 47 in the interview, 50 in the poetry, 49 in the informative and 48 scores in the final evaluation. In general, it can be said that the digital story-making skill of S8 has improved.

Graph 13: Evaluation Scores of S11's Digital Story Making Skill

When Graph 13 is examined, it is seen that S11 received 20 scores in the pre-evaluation, in the process 38 in the tale, 39 in the story, 45 in the interview, 50 in the poetry, 49 in the informative and 49 scores in the final evaluation. In general, it can be said that the digital story-making skill of S11 has improved.

Graph 14: Evaluation Scores of S6's Digital Story Making Skill

When Graph 14 is examined, it is seen that S6 received 20 scores in the pre-evaluation, in the process 42 in the tale, 47 in the story, 48 in the interview, 50 in the poetry, 51 in the informative and 50 scores in the final evaluation. In general, it can be said that the digital story-making skill of S6 has improved.

S6 scored 20 points in the pre-evaluation and 50 points in the final evaluation, so she became the student who showed the most improvement in terms of total points between the pre-evaluation and the final evaluation. For this reason, the story "Can and Technology" made by S6 in the pre-evaluation and the story "Derya and Technology" made in the final evaluation were described in detail.

In the preliminary evaluation of the *technical* category, the visuals used by S6 are of good quality (3 points) and the dubbing is comprehensible (3 points). The background

music used is not understood (1 point) and the background music suppresses the dubbing (1 point). The duration of the digital story is too short (1 point). In the final evaluation, the visuals used by S6 are of good quality (3 points) and the dubbing is clear and comprehensible (3 points). The background music used is of good quality and clear (3 points), and since the background music does not suppress the dubbing, the dubbing with the background music is appropriate (3 points). The duration of the content given in the digital story is ideal (3 points).

In the preliminary evaluation of the *harmony* category, the visual used by S6 does not fit well with the content (1 point). "Can was reading a book. This book introduced robots that dance and have fun. Can became very curious about this event. And he went over to the computer and searched it." In this statement, it is seen that the visual, dubbing, and background music used do not fit well with the content (Figure 3), and that transitions and effects are used unnecessarily. In the final evaluation, it is seen that the harmony of the visual, dubbing and background music with the content is quite good (Figure 4), and transitions and effects are used harmoniously. Figure 3 and Figure 4 each show a part of a digital story named "Can and Technology" created in the pre-evaluation and a part of the digital story named "Derya and Technology" created in the final evaluation by S6, respectively.

Can was reading a book. This book introduced robots that dance and have fun. Can became very curious about this event. And he went to the computer, researched.	He was succeeded by another scientist to continue his invention. He also completed Can's unfinished invention. It was a robot. They named it "Robot Techno". Can was a very popular Turkish scientist.

Figure 3. "Can and Technology", The digital story made in the pre-evaluation

Since Derya is very curious; Together with his father, they prepared a curiosity book for him.	Technology is not something a person invented.

Figure 4: "Derya and Technology", The digital story made in the final evaluation

In the preliminary evaluation of the *content* category, it is seen that the main idea of the story is not clearly revealed, the point of view is difficult to distinguish, and there

is no exciting question/slogan. It is seen that the emotion is not fully given with visual-music-dubbing, the content used in terms of integrity (text, visual, sound, music) does not complement each other, the content used in terms of originality and the way it handles the subject is not original. In the final evaluation, it was seen that the story had a predetermined purpose, the main idea to be given in the story was clearly stated, and the point of view supported the purpose of the story from the beginning to the end. It was found that the exciting question/slogan was insufficient to attract the attention of the audience, and the emotion was fully reflected. It is seen that the content used (text, visual, sound, music) complements each other in terms of integrity, and the content used and the way it addresses the topic are original in terms of originality.

In the pre-evaluation of the *legal/cost* category, it is seen that the details are not economical in terms of economy, some sections are kept too short, and the images used in terms of copyright do not belong to the student and are not used in accordance with copyrights. In the final evaluation, it is found that the details are sufficiently included in terms of economy, the amount of content used is sufficient, and the images used in terms of copyright are used by indicating the source.

3.3 Results of the Third Sub-Problem

"Semi-Structured Interview Form (Pre-Application)" was applied to the students in order to express their opinions about writing before the application. When the responses of the students were analyzed, the frequencies of the codes related to their opinions regarding writing are given in Table 5.

Table 5: Pre-Application Student Opinions

Themes	Codes Sub Codes		Recurrence Frequency f
Reasons to love writing	Pouring out		4
	Entertaining		4
	Relaxation		3
	Developing the imagination		1
	Creativity		2
Reasons of reluctancy for writing	I have no reason to dislike (I love)		5
	Hurting the hand		2
Known text types	Story		7
	Tale		6
	Poetry		6
	Informative text		2
	Joke		3
	Novel		1
	Fable		1
	Autobiography		1
Information about text types	Story	Real factors	5
		Spelling rules	1
		Punctuation	3

	Tale	Imaginary factors	6
		Punctuation	1
	Poetry	Rhymed	3
		In stanzas	2
		Expressing feelings	2
	Informative text	Informative	1
	Joke	Funny/ Entertaining	3
	Novel	Long written	1
	Fable	Animals are made to talk	1
	Autobiography	Narrating our life	1
What type of text they want to write	Story		2
	Tale		3
	Poetry		1
	Joke		1

When Table 5 is examined, it has been observed that the students expressed their reasons for loving writing as the purpose of pouring out their heart (n=4), having fun (n=4), relaxing (n=3), developing imagination (n=1) and developing the creativity (n=2). The students expressed their reasons for reluctance for writing as there is no reason to dislike writing (they like to write) (n=5) and hurting their hands (n=2). It is observed that the types of texts that students knew story (n=7), tale (n=6), poetry (n=6), informative text (n=2), joke (n=3), novel (n=1), fable (n=1), autobiography (n=1). When the students' knowledge of text types was examined, it was stated that the story consisted of real factors (n=5), spelling rules (n=1) and punctuation (n=3). They explained that the tale consists of imaginary factors (n=6) and punctuation (n=1). They stated that the poetry is rhymed (n=3), in stanzas (n=2), and is a means of expressing feelings (n=2). They stated that the informative text gives information (n=1), the joke is funny (n=3), the novel is written long (n=1), the fable is a genre in which animals speak (n=1), and an autobiography is a means of narrating our life (n=1). It has been observed that the students wanted to write in the text types of stories (n=2), tales (n=3), poetry (n=1) and jokes (n=1).

"Activity-Based Writing Semi-Structured Interview Form" was applied to the students in order to reveal their opinions about activity-based writing activities after application. By analyzing the answers given by the students, the frequencies of the codes related to their views on activity-based writing activities are given in.

Table 6: Students' Opinions on Activity-Based Writing Activities

Themes	Codes Sub Codes		Recurrence Frequency f
	Story	Real factors	6
		Introduction-body-conclusion sections	7
		Character, event, place, time	2
		Imaginary factors	5

Information about text types	Tale	Introduction-body-conclusion sections	5
		Starts with a rhyme	5
		Ends with a good wish	2
	Poetry	In stanzas or free verse	6
		Rhymed or blank verse	3
		Saying a lot in few words	2
		Expressing feelings	1
	Informative text	It should give information	7
		Introduction-body-conclusion sections	7
	Autobiography	There are different questions in introduction, body and conclusion sections	3
		The person to be interviewed should be known	3
		An appointment should be made from the person to be interviewed	4
		Pre-interview preparation should be made	1
		There should be no repetitive questions	1
		The interview should be recorded	2
The effect of writing activities	Positive		7
	Negative		-
Thoughts on writing text before and after activities	I didn't know how to type text types, I know it anymore		4
	I thought it was hard, and I think it's easy anymore		2
	I didn't like it, I love it anymore		1
What type of text they want to write	Poetry		4
	Story		3
	Informative text		2
	Tale		2
Benefits of digital storytelling for writing	Finding and correcting errors in the text		11
	Writing more diligently/carefully		4
	Providing motivation for writing		1
Evaluation of writing activities	Funny/ Good		6
	Having knowledge		2
	Improving writing skills		2
	Make them love writing		1
	Increasing interest in writing		1
	Developing the imagination		2
	The activities were nice		1

When Table 6 is examined, it is seen that the students stated that the story consists of the real factors (n=6), introduction, body, conclusion sections (n=7), elements of character, event, place and time (n=2). They stated that the tale consists of an imaginary factor (n=5), introduction, body and conclusion sections (n=5), starts with a rhyme (n=5) and ends with good wishes (n=2). They stated that poetry is a type of poem in stanzas or free verse (n=6),

rhymed or blank verse (n=3), in which a lot is told with few words (n=2) and feelings are expressed (n=1). They explained that the informative text gives information (n=7) and consists of introduction, body and conclusion parts (n=7). They stated that the different questions are asked in the introduction, body and conclusion sections of the interview (n=3), and it is necessary to have information about the person to be interviewed (n=3), to make an appointment with the person to be interviewed (n=4), to make preparations before the interview (n=1), the questions in the interview should not be repeated (n=1), the interview should be recorded (n=2). They stated that the effect of writing activities on students is positive (n=7). The expression *"Writing activities improved my writing, reading and reading comprehension. I learned new information, how to write tales, stories, poems, and informative texts. It inspired me to write. I am happy when I write.* " of S5 supports this finding. The students stated their thoughts on writing texts before and after the activities with the following expressions: they did not know exactly how to write text types beforehand, they learned after the activities (n=4), they thought that writing beforehand was difficult, they thought it was easier after the activities (n=2), they did not like writing before, they liked after the activities (n=1). The expression *"I didn't like writing assignments before. Now I want the teacher to give more writing assignments. After these activities, I bought myself a notebook and wrote him my feelings and stuff. I write my feelings and thoughts. Writing is actually a good thing."* of S6 supports these findings.

When the students were asked what type of text they wanted to write after the activities, the students explained that they wanted to write in the genres of poetry (n=4), story (n=3), informative text (n=2), tales (n=2). The expression of *"I want to write a story. Because I don't like to write things that are fictional."* S2 supports this finding. The students stated that making digital stories of the written texts provided the students with the opportunity to see and correct the mistakes in the text they wrote (n=11), to write more diligently and carefully (n=4), to increase their motivation toward writing (n=1) and included the following statements: *"I realized my mistakes in the fairy tale I wrote while making a digital story and corrected them. I saw and corrected my mistakes in the poem and story I wrote. There were times that I didn't like the text I wrote and even wrote it from the beginning. I didn't like the opening part of the story. When I was making a digital story, the text I wrote made no sense, so I took my pen and corrected it."* of S5 supports this finding.

When the students were asked to evaluate the writing activities during the application and the application process, they stated that the activities and the application process were funny/good in general (n=6), they had knowledge about text types (n=2), their writing skills improved (n=2), it made them love writing (n=1), they increased their interest in writing (n=1), they developed their imagination (n=2) and the activities were nice (n=1). The expression of *"The writing activities were very well, funny and educational. I learned how to write text types. I'm more interested in writing anymore, and I love writing more. I was very interested in making a digital story of the text I wrote."* S1 supports these findings. S4's expression *"… Me and my teacher first learned about the stations, then we read the tale of the Cicada and the ant and divided them into stations. Then I made the map of the story, I had a lot of fun. And then we talked at length about what the story would be like if Nasrettin Hodja*

began the story of the Girl with the Red Hood. I learned a lot of new information about the tale…" in her diary about the studies done in the tale writing activity called "Nasreddin Hodja Has Fallen into My Tale" supports these findings. The fact that the researcher expressed the works done in the tale writing activity called "Nasreddin Hodja Has Fallen into My Fairytale" in this way in the diary *"…Although it was the first week, there were good articles. They had a lot of fun writing the tale. At the end of the lesson, everyone transcribed their tales on clear paper. Next was the evaluation form and the diary. The diary attracted a lot of interest of the students. S6 "Teacher, it's nice to have a special diary for me." said. The students excitedly wrote in their diaries what they did that day."* also supports these findings.

4. Results and Discussion

In this study, which was designed as an action research, the changes of the third-grade gifted students of activity-based digital storytelling in the writing skills, digital story making and their views on writing were revealed. In line with the action plan prepared during the application process of the research, the activities were carried out and it was observed that the writing skills and digital story-making skills of the students improved. In addition, according to the interviews with the students, it was seen that their knowledge of the students about writing increased, they liked writing with activities, they learned new information with writing, and they liked the activities.

In the first sub-problem of the study, it is seen that the writing skills of the students improved when the scores they got during the pre-evaluation, post-evaluation and application process were examined in the activity-based digital storytelling activities prepared for the third-grade gifted students. It is observed that there are improvements in ideas, organization, voice, word choice, sentence fluency, conventions and presentation dimensions of the texts written by the students. Students are involved in the text-writing process before assembling multimedia tools in digital storytelling. Writing is key to digital storytelling. Although the products produced by students in digital storytelling are media-based, the digital story-making process is primarily a writing process (Kajder, Bull and Albaugh, 2005; Miller, 2010; Ohler, 2006; Sandars, Murray and McPherson, 2009). Therefore, the more qualified the text is, the more qualified the digital storytelling will be.

It is seen that S1 got 17 points in the pre-evaluation, 35 points in the final evaluation, S2 got 13 points in the pre-evaluation and 35 points in the final evaluation, S4 got 7 points in the pre-evaluation and 35 points in the final evaluation, S5 got 7 points in the pre-evaluation and 33 points in the final evaluation, S6 got 15 points in the pre-evaluation and 35 points in the final evaluation, S8 got 11 points in the pre-evaluation and 23 points in the final evaluation, S11 got 9 points in the pre-evaluation and 35 points in the final evaluation. S4, who showed the most improvement among the students' pre-evaluation and final evaluation points, got 7 points in the pre-evaluation and 35 points in the final evaluation. In line with these findings, it can be said that the writing skills of the students participating in the research have improved. S4 expresses the effect of writing

activities on writing skills as follows: *"Writing activities had a positive effect on me. I'm used to writing. I write better now. Writing has enhanced my imagination. After writing, I started reading more books to improve my imagination. I like writing more now. I write in my free hour in class."* From this point of view, it is thought that the development of S4 is due to the fact that the student began to read more books thanks to writing activities and did extracurricular writing. In addition, it is understood from both the development of the students and the opinions of the students that writing is not only about choosing a topic and writing but also that activities that prepare for writing (Burning and Horn, 2000) should be done.

As the students learned to write through activities, they saw that they could write, and as their writing success increased, they liked writing. From this point of view, it is demonstrated by both evaluation scores and interviews that students' writing skills have improved. This indicates that digital storytelling is an effective method that can be used to improve writing skills and other research in this field is also consistent with the findings of this research (Aktaş, 2019; Baki, 2015; Baki and Feyzioğlu, 2017; Castillo-Cuesta et al., 2021; Chuang et al., 2013; Çıralı, 2014; Dayan, 2017; Demir ve Kılıçkıran, 2018; Fitri, Husnawadi and Harianingsih, 2021; Foley, 2013; Gider, 2019; Girmen, Özkanal and Dayan, 2019; Gürsoy, 2021; Haşlaman, 2017; Özüdoğru and Çakır, 2020; Riani, Husnawadi and Syarifudin, 2021; Rong and Noor, 2019; Santiana et al., 2021; Saunders, 2014; Sudarmaji, Mulyana and Karsiyah, 2020; Tanrıkulu, 2020; Tarigan and Liana, 2018; Xin, 2013; Yamaç, 2015; Yamaç and Ulusoy, 2016; Yılmaz et al., 2017).

It has been observed that there are improvements in the dimensions of ideas, organization, voice, word choice, sentence fluency, conventions, and presentation of the texts written by the students. In Yamaç (2015)'s study, developments in the ideas, organization, word choice, sentence fluency and spelling in terms of the writing quality of the texts written by primary school third-grade students with normal development of digital stories. He stated that there was an increase in story elements and the number of words used. Aktaş (2019) states that digital writing workshop activities provide improvements in ideas, organization, word choice, sentence fluency and spelling dimensions in students' writing.

Gider (2019) stated that individual and collaborative digital storytelling practices of gifted fourth-grade students studying at the Science and Art Center had a positive effect on their writing performance. Girmen, Özkanal and Dayan (2019) stated in their study that digital storytelling is effective in improving primary school fourth-grade students' writing skills and developing a positive attitude towards writing.

In the second sub-problem of the research, the pre-application, application process and post-application situations of digital storytelling studies made by third-grade students with special abilities were examined. Considering the scores obtained by the students in the pre-assessment, post-assessment, and application processes, it was seen that the students' digital story-making skills improved. In addition, it was observed that the digital stories made by the students improved in terms of the application process and visuals, sound, and music (background music) quality in the final evaluation. It was

observed that they have improved in terms of the harmony of the music (background music) and dubbing, and the sufficient length of the content of the digital stories. The students made progress in the stages of choosing the visuals used in the digital story in harmony with the content of the text, performing the dubbing in accordance with the type and subject of the text, and choosing the music (background music) in accordance with the theme of the text. It was observed that the students showed improvement in terms of having a predetermined purpose in the digital story and clearly revealing the main idea to be given, creating a good point of view, supporting the purpose of the story from the beginning to the end, and providing a question/slogan in the digital story that draws the viewer's attention to the end and arouses a sense of curiosity in the viewer. It was observed that students showed improvement in terms of fully reflecting the desired emotion with the visual, music and dubbing used, making the content of the text, visuals used, music (background music), and dubbing compatible with each other and creating wholeness, being original and differing from other digital stories in terms of content (visual, music, vocalization) and the way it addresses the topic. In terms of economy, it was observed that they have improved in giving enough details, a sufficient amount of use of pictures, videos, music, and sound, and using the pictures, music, videos, and images used in the story by showing the source in accordance with the copyrights.

It is seen that S1 got 20 points in the pre-evaluation, 50 points in the final evaluation, S2 got 22 points in the pre-evaluation and 48 points in the final evaluation, S4 got 23 points in the pre-evaluation and 50 points in the final evaluation, S5 got 19 points in the pre-evaluation and 48 points in the final evaluation, S6 got 20 points in the pre-evaluation and 50 points in the final evaluation, S8 got 20 points in the pre-evaluation and 48 points in the final evaluation, S11 got 20 points in the pre-evaluation and 49 points in the final evaluation. S4, who showed the most improvement among the students' pre-evaluation and final evaluation points, got 23 points in the pre-evaluation and 50 points in the final evaluation. In line with these findings, it can be said that the digital story-making skills of the students participating in the research have improved. S6 expresses the effect of digital storytelling activities on digital story-making skills as follows: "I used to use the computer very well in daily life, but I realized that I could use the computer better thanks to digital story-making activities. It was a lot of fun to add visuals, music and effects to the texts I wrote. I felt like a movie director. With digital storytelling, writing has become more fun." *From this point of view, it is thought that S6 student's being the student with the most improvement is due to the fact that he can use the computer well in daily life, that digital storytelling activities are interesting by arousing curiosity and that it is an effective method for active learning"* (Van Gils, 2005).

Gifted third-grade students made digital stories by completing multimedia tools such as visuals, music and sound with the texts they wrote. It has been observed that gifted third-grade students' skills in making digital stories have improved in this process. Yamaç and Ulusoy (2016) stated in their study with third-grade students that students make more qualified digital stories. Demir and Kılıçkıran (2018) stated that the visuals obtained with the digital storytelling application appealing to more senses, the active role

of the students in the digital storytelling throughout the process, and the free expression of their imaginations in the classroom environment have positive contributions on the second-grade students with a special ability and increase the interest of the students.

In the third sub-problem of the research, the opinions of the third-grade gifted students about activity-based writing activities were examined. When the opinions of the students before the application were examined, they expressed the reasons for liking writing as expressing their feelings (pouring out), having fun (entertaining), relaxing (relaxation), developing their imagination (creativity) and expressing their feelings. They stated that their reasons for not liking to write were that their hands hurt and they did not think of anything to write. It has been observed that the types of texts that students know are story, tale, poetry, informative text, joke, novel, fable, letter, autobiography. When the students were asked about the types of text they wanted to write, it was seen that they preferred the types of stories, tales, poems and jokes. It was observed that the students' knowledge of writing such as text types, how to write text types, spelling rules, and conventions increased after the application. From this point of view, it was revealed through interviews that students' knowledge of writing increased. This shows that activity-based digital storytelling is an effective method that can be used to increase students' knowledge of writing and other research in this field is also consistent with the findings of this research (Castillo-Cuesta et al., 2021; Özüdoğru and Çakır, 2020; Rong and Noor, 2019; Yamaç, 2015). Lin, Monreo, and Troia (2007) argue that classroom teaching activities have an important role in students' writing skills and writing knowledge.

The students stated that the writing activities were fun/good; they learned new information thanks to the activities (Castillo-Cuesta et al., 2021; Özüdoğru and Çakır, 2020; Rong and Noor, 2019; Yamaç, 2015); their writing skills improved (Aktaş, 2019; Baki, 2015; Baki and Feyzioğlu, 2017; Castillo-Cuesta et al., 2021; Chuang et al., 2013; Çıralı, 2014; Dayan, 2017; Demir ve Kılıçkıran, 2018; Fitri, Husnawadi and Harianingsih, 2021; Foley, 2013; Gider, 2019; Girmen, Özkanal and Dayan, 2019; Gürsoy, 2021; Haşlaman, 2017; Özüdoğru and Çakır, 2020; Riani, Husnawadi ve Syarifudin, 2021; Rong and Noor, 2019; Santiana et al., 2021; Saunders, 2014; Sudarmaji, Mulyana and Karsiyah, 2020; Tanrıkulu, 2020; Tarigan and Liana, 2018; Xin, 2013; Yamaç, 2015; Yamaç and Ulusoy, 2016; Yılmaz et al., 2017); it made them like writing (Van Gils, 2005); they increased their interest in writing; they developed their imagination and that they liked the activities.

5. Recommendations

Based on the results of the research, it can be said that the action research has been successful and the following suggestions can be made. When writing is considered as a process, it is thought that preparing students for pre-writing is at least as important as the writing process. In this research, preparation for writing was made by carrying out activity-based writing activities. The writing activities to be done can include the

preparation stage (Pre-writing) for writing. The research was used in the digital storytelling Turkish course. Digital storytelling can be used in different courses. The research was conducted with third-year students attending the support training program at the Science and Art Center. The researches can be done with special talented students in different programs studying at the Science and Arts Center, as well as the researches for students who are developing normally.

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Conflict of Interest Statement

The authors declare no conflicts of interest.

About the Author(s)

Tuğba Tetik, is a primary school teacher at the Ministry of National Education, Türkiye. She completed his doctorate at Burdur Mehmet Akif Ersoy University. The author works on gifted students, digital storytelling, and teaching writing. orcid.org/0000-0002-5060-043X

Derya Arslan Özer, working as Prof. Dr. at the Faculty of Education at Burdur Mehmet Akif Ersoy University, Türkiye. She offers courses at the undergraduate, graduate and doctoral level. She has articles published in national and international journals on literacy, reading difficulties, writing difficulties, and teacher education. orcid.org/0000-0002-4555-5435

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