

## Museum Education with Storyline Method: How Do Primary School Students Perceive Historical Artifacts?

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**Abstract.** An educational museum is an active learning environment created for students' participation (art, music, and drama) to learn by doing and experiencing, and didactic knowledge. This research seeks to determine the effect of the Storyline Method on students' perceptions and interpretations of historical artifacts through museum education. This research applied the phenomenology design as one of the qualitative methods, consisting of first-year students (20) in a public school in Istanbul. The students were trained for a total of 15 hours, 5 hours a week, on museum education with the Storyline Method. The research data consisted of interviews with children, pictures made by children, and diaries written by them. The collected data were analyzed using the descriptive analysis method. The research results found that the method of storyline positively affected the students' perceptions of historical artifacts. Also, as a result of the interviews of the students and their drawings, there was a positive change in students' perceptions of the importance and preservation of historical artifacts. In addition, as a result of the Storyline Method, the students had "happiness, excitement, sightseeing" feelings and thoughts about historical works.

**Keywords:** museum education, storyline method, historical artifacts, primary school students

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**INTRODUCTION** ~ Museums, one of the leading institutions of outdoor learning spaces, offer students experiences with valuable and unique works to be presented at school (Mercin, 2017). The most important privilege of museums in education is that they offer the opportunity to learn by seeing, hearing, practicing, and experiencing for the students (Buyurgan & Buyurgan, 2007). Beyond abstract learning, examining the works of past periods by seeing and touching makes it possible for learners to approach the subject to be learned with the spirit of research (Seidel & Hudson, 1999). In addition to providing the development of many skills, educational activities with the museum (observation, using evidence, research, comparison, evaluation, empathy, social participation, creativity, etc.) also contribute to the development of historical awareness and aesthetic sensitivity, and to the education of individuals who recognize, protect and transfer the cultural heritage of the future to the next generations (Abacı, 2005; Kiraz, 2009). Moreover, education with the museum also allows children to understand, protect and preserve cultural assets, ancient artifacts; to recognize their own culture and different cultures with a versatile and tolerant approach; to establish a connection between the past and the

present; and to get to know themselves and their environment (Çakır İlhan et al., 2013). This education method brings the museum to serve goals such as developing intercultural understanding and empathy (Fazlıoğlu & Fazlıoğlu, 2009; San, 2008).

In the new primary education programs prepared by the Ministry of National Education in Turkey, educational practices with museums were recommended in the curriculum of Turkish, Mathematics, Social Studies, Life Science, Science and Technology, and Visual Arts, and the necessity of museum visits was emphasized (MEB Mevzuat, 2008). It is a fact that understanding the past, respecting history, and valuing the culture that needs to be preserved is valuable for students to gain through education.

Education with the museum has gained importance in education with its conformity with the constructivist approach, the use of different learning techniques, and learning environments. Today, the nature of knowledge and learning is the basis of constructivism (Brooks & Brooks, 1999). In the constructivist approach, new information is built on previous information by paving the way for each acquired information to construct the next information. In this sense, constructivist learning is a process of linking existing and new learning, and integrating new knowledge with previous ones. This integration is not about accumulating and memorizing information but also thinking and analyzing (Bıyıklı et al., 2008). Learning environments created based on constructivism allow for more individualistic learning environments with the perspective they bring to the concept of reality (Güney & Doğan, 2019).

The Storyline Method was influenced by Dewey, Vygotsky, and Piaget within the framework of the constructivist approach (Falkenberg, 2007; Creswell, 1997 cited in Mitchell, 2016). Storyline with the students taking part in the story does not only allow children to learn by living but also ensures that learning is permanent (Bell, 2007; Harkness, 2007).

According to Harkness (1997), a storyline is a way of making children think. Children use their creativity to create characters and use scientific thinking processes to solve the problems that arise during the process (Tepetaş Cengiz, 2015). In the Storyline Method, children live in the process they plan with their teachers. They stimulate their imagination and use appropriate steps in problem-solving. They learn by interacting with their peers as partners in the process. They do not even realize how they learned the concepts in the series of events that progress as if they are part of a story, and they start using the new information they have learned while having fun. They have the opportunity to try different learning ways with structured and unstructured activities. They gain experience in daily life by encountering a new series of events in each story (Creswell, 1997; Hofmann, 2007; Järvinen, 2003; McBlain, 2007; McNaughton, 2007; Solstad, 2006; Wrigley, 2007). It also provides the opportunity to be creative with limited resources, to cooperate with others by pretending, and to make choices using imagination. By

providing learning motivation, it encourages deep thinking with open-ended questions (Ahlquist, 2016).

### **THEORETICAL FRAMEWORK**

The main components of the storyline teaching method are on the basic assumptions of the "constructivism" approach. Explaining the intersection points of constructivism and Storyline Method in detail will be helpful for a more detailed understanding of the purpose and content of the Storyline Method. These are that the student must find real life at school. Activities should be relevant in real life. The student's mind should not be perceived as an empty object. Students construct learning processes using their decision-making and responsibility-taking skills (Harkness, 2007). In addition, the "key questions" that play a vital role in the Storyline Method, just like in constructivism, save the student from looking for a monotonous answer, enable them to think by employing different thinking skills, and to come up with different multi-faceted answers.

In addition, the respect for the uniqueness and existence of the individual in the constructivist approach is one of the basic principles of the Storyline Method. The students communicate with the teacher based on respect. The philosophy that individual and group interactions and collaboration studies are effective in the creation of creative knowledge in the constructivism approach is also present in the Storyline Method. In this approach, the teacher creates systemically activities such as individual and group work, which will make the cooperation effective. In addition, in constructivism, students are defined as knowledge workers who create knowledge with their experiences; in the Storyline Method, students are given their responsibilities, and the student is the manager of the learning process. As in constructivism, the learning outcomes in the Storyline Method can be very diverse and original ideas that the individual put forward by using their creative thinking skills (Schwänke & Gronostay, 2007). All these common components and applications show that the basis of the Storyline Method is shaped within the framework of the constructivist approach.

When the relevant literature is examined, there are studies on the use of the creative drama method (Altın & Oruç, 2016; Karaoşmanoğlu, 2017; Okvuran, 2012; Ulu & Burgul Adıgüzel, 2019) in studies conducted through education with the museum. Additionally, it has been observed that the museum has conducted studies on the importance, benefits and how it should be realized of versatile and effective learning (Buyurgan, 2017; Jeffery-Clay, 1998; Öner et al., 2019; Pekgözlü Karakuş, 2012; Şahan, 2005). There are also studies to raise awareness of cultural heritage in students (Bülbul, 2016; Üztemur et al., 2018). Teacher and student opinions (Çalışkan & Çerkez, 2012; Dilli, 2017; Yılmaz & Şeker, 2011) and students' experiences in the museum (Akgün et al., 2017; Anderson et al., 2002; Doering, 1999; Piscitelli & Anderson, 2001; Wolins) et

al., 1992) and education with museums in preschool period (Aktin et al., 2017; Dilli and Dümenci, 2015; Özer and Yıldırım Polat, 2019) studies were also carried out.

When the literature on the Storyline Method is examined, there are many studies on preschool (Gürol & Kerimgil, 2012; Tepetaş & Haktanir, 2013) to primary school (Güney, 2003; Özden, 2012), and secondary school (Toy & Akpınar, 2020; Yiğit, 2007) to higher education (Mitchell, 2016), which show there are many levels of Storyline Method implementations. Although this approach has been used in different countries, but recently recognized in Turkey, a study on the method in relation to museum education has not been found in the literature. Since this research seeks to reveal students' perceptions and interpretations of historical artifacts with the Storyline Method of museum education, this research is original and can contribute to the literature. Based on this consideration, this research aims at revealing whether the use of the Storyline Method in museum education affects the perception and interpretation of historical artifacts by first-grade primary school students. In this direction, the research questions are:

1. What are the students' perceptions of historical artifacts/places?
2. What are the students' perceptions of whether there are historical artifacts in the city they live in?
3. What are the students' perceptions of the importance of historical artifacts?
4. What are the students' perceptions regarding the preservation of historical artifacts?
5. What are the students' feelings and thoughts about historical artifacts?

## **METHOD**

### **Research Design**

Phenomenology, one of the qualitative research designs, was used in this research. Phenomenology is a mix of a philosophical movement and a qualitative research method (Gill, 2014). In the phenomenological approach, individuals' experiences, perceptions, and meanings about a phenomenon are tried to be determined. Phenomenology studies and information provide useful and rich information in the literature, both the definition and dimensions of the focused phenomenon, the meanings that the participants' experience, feel and create with this phenomenon, and when creating a theory based on these (Creswell & Poth, 2016). Therefore, this research decided that the phenomenology method was appropriate since this method aimed at determining the perceptions created in the minds of the students about the historical artifacts.

### **Study Group**

The study group involved 20 students attending the 1st grade of primary school in a public school in Istanbul, Turkey. It consisted of eight female students and 12 male students. The age group of students was six and seven years old. The study group was determined by the criterion sampling method, one of the purposive sampling methods. The basic understanding of this

sampling method is to study all cases that meet a predetermined set of criteria (Yıldırım and Şimşek, 2018).

The criteria determined in this research; students should attend the first grade of primary school, have internet access, attend classes uninterruptedly, and express themselves well. The reason for choosing the students who continue to the 1st grade of primary school is to examine the students' perceptions in the younger age group towards historical artifacts.

### Data Collection Tools

This research used multiple data collection methods to allow children to express themselves with different techniques. Face-to-face interviews, online historical site visits, two- and three-dimensional studies, story writing, diary-keeping, and pre-post interview were used as data collection tools, and document review was carried out. The document review used as a necessary information collection method includes the analysis of written and visual materials and materials containing information about the phenomenon or phenomena targeted in the research (Yıldırım & Şimşek, 2011). First of all, pre-interviews were conducted with the children. Then, their level of knowledge about the concept of "historical artifact" was measured. In order to increase the internal reliability of the research, direct quotations were tried to be included in the findings section. Keeping the students' identities in the study groups confidential was found ethically appropriate. For this purpose, nicknames were used for students in alphabetical order starting from the letters a b c. The interview questions asked to students in face-to-face interviews are shown in Table 1.

**Table 1.** Interview Questions

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1	What does a historical artifact mean?
2	Are there any historical artifacts in Istanbul?
3	If yes, what are these historical artifacts?
4	Why do you think historical artifacts are important?
5	Should we protect historical artifacts? Why?"

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While preparing the interview questions, three lecturers, consisting of an expert in classroom education, an expert in pre-school education, and a classroom teacher who has been teaching for at least ten years, provided opinions. According to expert opinions, corrections were made to the content of the questions. In this way, it was ensured that the interview questions served to reflect the situation appropriately. Also, support was taken during the preparation of the storyline activities by the same experts. Thus, attention was paid to content validity.

### Process

This research was carried out in the free activity classes of the 1st grade of an official primary school affiliated with the Ministry of National Education in Istanbul, Turkey, in the spring term of the 2020-2021 Academic Year. Students' perceptions of history are not given many places in the life studies lessons taught in the 1st, 2nd, and 3rd grades in Turkey. These topics are usually included in the curriculum after the 4th grade. Therefore, it is crucial to examine the perceptions of the historical artifacts of the younger students who attend a class. Classrooms, function halls, school gardens, the area where the Galata Tower is located in Istanbul, and an online lesson processing platform were used for teaching lessons. It was not possible to go to the Galata Tower collectively under the pandemic conditions, but the Galata Tower is located in the area where the students live and can be seen from the classrooms of the school. Hence, many of them have passed by the Galata Tower and have breathed the air of the region. However, through this education, they learned why and how the historical importance of the Galata Tower should be preserved and transferred to future generations. Based on the nature of the Storyline Method, the students created the characters and the place. Therefore, during the education, the students created their models of Galata Tower pictures and took their characters for a walk in the Galata Tower. This situation allowed the students to feel that they had the same experience through the story character. The research was applied to the whole class, and the data was collected from the whole class. 15-hour activities, three weeks and five hours a week were held with 1st-grade students. A summary of the activities is presented in Table 2.

**Table 2.** The Summary of the Activities

Activities	Activity Date
Start listening to the story / Brainstorm about the character in the story	19.04.2021
Create the character (waste materials, etc.) / Write an information card for the character (where he is from, age, physical characteristics, etc.)	20.04.2021
Brainstorm about historical buildings/artifacts that the character is curious about in Istanbul / Brainstorm about the historical buildings/artifacts in Istanbul	21.04.2021
Brainstorm about Galata Tower in Istanbul / Research Galata Tower	26.04.2021
Examine the images of Galata Tower / Prepare the tagline of the Galata Tower with their drawings	27.04.2021
Brainstorm about other historical structures/artifacts that should be seen in Istanbul	28.04.2021
Brainstorm what other historical structures the character can see from the Galata Tower	29.04.2021

Gather and paint information about the aforementioned historical buildings	30.04.2021 03.05.2021
Write a letter to the character about these structures/artifacts	04.05.2021
Brainstorm "How would I feel if I were the character" / Write an article describing your feelings and thoughts titled "How would I feel if I were in the character's place"	05.05.2021
Brainstorm "What we have learned"	06.05.2021
Brainstorm why historical artifacts/buildings are important	07.05.2021
Discuss in class what should be done and what should be done to protect historical artifacts	10.05.2021
Finish the story (Appendix 1 includes the products obtained from the education process)	11.05.2021

### **Researcher Role**

In this research, museum education with Storyline Method is described and interpreted in detail, and it aims at revealing the perspectives and perceptions of primary school students. According to this approach in the research, the second researcher is in the position of the researcher/teacher who directly meets with the participants, shares the same environment, and uses the perspective she obtained in data analysis. Other researchers have undertaken the roles of supporting scientific research processes, such as providing support in the data analysis of the article, providing expert opinion, writing the introduction, method, findings, and discussion sections.

### **Data Analysis**

A literature review was made regarding the research subject, the qualitative data obtained from the interviews with the children, and the interpretation of the pictures drawn by the children using the descriptive analysis technique. In the descriptive analysis, a framework for data analysis was created based on the questions and dimensions used in the interview processes. According to this framework, the data were brought together logically, direct quotations were frequently included in the findings in order to reflect the views of the children in a striking way, the identified findings were explained and correlated (Yıldırım & Şimşek, 2011). However, instead of the real names of the students, code names, such as Ahmet, Burcu, Cansu..., were used in alphabetical order starting from the letter A. In the data analysis, the points taken into consideration in reaching the historical perceptions of the students from the data collection can be summarized as follows: In the preliminary interviews, less than half of the students thought that it was sufficient for an asset to be old as a historical artifact, and the other half had no perception about the historical artifact. In the pre-paintings of the students, the students mostly painted the old items they saw in their grandparents'

houses. When the pictures of the students were examined, it revealed that they were ordinary pictures that a 7-year-old child could draw and that they did not reflect any perception of historical artifacts. At the end of the education, all of the students had perceptions that for an asset to be a historical artifact, *"It is not enough to just be old, it is a historical artifact that comes from the past, gives information about different people and cultures and should be transferred to future generations,"* turned out to be. The reflections of these expressions/perceptions are seen in the last pictures of the students, which show that the students painted historical structures from centuries ago, built in different periods, and used by different people and lives. Based on the last pictures of the students, compared to their preliminary pictures, it reveals that they now told a story in their pictures, and they had perceptions of the history and story of that building while drawing the pictures. According to the students' documents (story writing, keeping a diary), it reveals that their perceptions about other historical artifacts had increased, especially starting from the historical artifacts in their immediate surroundings. The students described the historical buildings in their diaries and expressed that they would like to visit and see those structures, and this would make them happy. In addition, now, they have a perception of the symbolic structures in the city they live in and are known by the whole world, as well as they perceive by whom, when, and for what purpose these structures were built. During the data analysis, attention was paid to these factors, and these thoughts and perceptions were tried to be reflected.

### **Validity and Reliability**

In this research, various measures were used to increase the validity and reliability. First of all, credibility was tried to be ensured through long-term interaction with students and expert opinions. All processes that were carried out and expert opinions were taken during the preparation of the interview questions and educational activities. The reliability of the research was tried to be increased by using different data collection tools with triangulation, making diversification, elaborating the study group of the research, and taking expert opinions. In addition, the findings obtained from the students' drawings and opinions were shown to them at the end of the research, and "Member checking" was obtained. Finally, direct quotations are included in the findings section in order to increase the internal reliability of the research.

One of the ways to increase the reliability of the research in qualitative studies is the coder reliability. This research used the formula of encoder reliability proposed by Miles and Huberman (1994). The consistency of the analysis between the researcher and the experts was calculated in accordance with the formula "Reliability = Number of Agreements / Number of Agreements + Number of Disagreements". The encoder reliability between researchers and experts was 0.91 on average for all research questions. Therefore, since it is above 0.80, the analysis of the data collection tool used in this research is considered reliable.

## RESULTS

### Students' Perceptions of Historical Artifacts/Places Before and After the Education

Before and after the application of the Storyline Method, interviews were conducted with the students to determine their perceptions of the students about the historical artifacts. The findings are given in Tables 3, 4, 5, and 6.

**Table 3.** Students' Pre-Perceptions about the Historical Artifact

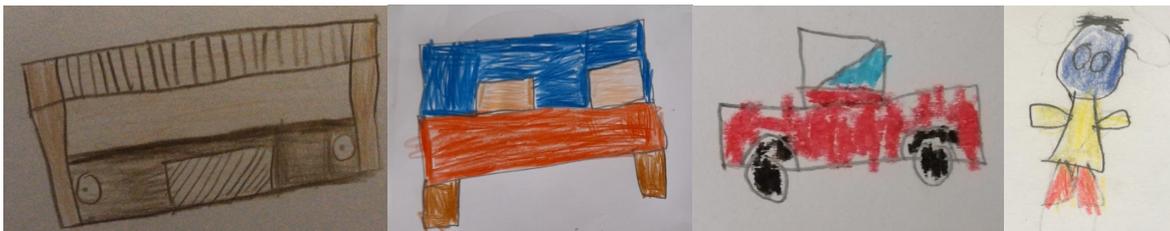
Themes	Number of Students (f)
Don't know/ None	9
Know/ Have	9
Undecided	2
Total	20

The "what is a historical artifact?" question was asked to the students and as seen in Table 3. The result shows that nine students did not have a perception of historical artifacts, two students were undecided, and nine students had perceptions about historical artifacts. Ege, one of the students with the perception: 'Ancient beings in our history', undecided Anıl: 'Dinosaur? Is it bone?', and Çınar, who has no perception, expressed his opinion as: 'Tractor, car'. At the same time, students were asked to draw pictures about the historical artifact and their visual expressions were examined. The pre-perceptions of the students about what historical artifacts are presented in Table 7.

**Table 4.** Students' Pre-Perceptions about Historical Artifacts

Main- themes	Sub-themes	Number of Students (f)
Those who know	Old item/asset/building	10
	Valuable object	3
	Statue	2
Those who don't know	Those who say they don't know	9

Students with a perception about historical artifacts were asked what historical artifacts they know and the ideas of the students emerged within the framework of the themes in Table 4. The result reveals that ten students stated that old things can be historical artifacts. In addition, some students expressed that things can also be historical artifacts, valuable things, statues, etc. Anıl, one of the students stated his opinion as 'Ancient items', Eylül: 'Valuable items', Kayra: 'Old cars', and Ayşegül: 'Sculptures'. Students were also asked to draw a picture of their thoughts. The data appearing in the pictures coincide with Table 4. The examples of pictures made by children are shown in Figure 1.



**Figure 1.** From Left to Right: Front Pictures of Students Coded Anıl, Eylül, Kayra, Ayşegül

As seen in the pictures, the students drew the pictures expressing their thoughts and reflected on their pre-perceptions about what the historical artifact is. The post-perceptions of the students about a historical artifact are presented in Table 5.

**Table 5.** Students' Post-Perceptions of the Historical Artifact

Main- themes	Sub-themes	Number of Students (f)
Past / Legacy	old building from the past	19
	old stuff from the past	18
Valuable	valuable building	2
	Valuable object	2

After the education with the Storyline Method, the students who had a perception about historical artifacts were asked what historical artifacts they know, and the students' ideas emerged within the framework of the themes in Table 6. The results revealed that students' perceptions of historical artifacts were mostly in the framework of old buildings and objects from the past. In addition, the students expressed that valuable objects and buildings can also be historical artifacts. One of the students, Deniz, expressed her opinion as "The things, places, buildings that have survived to our day from the past", and Ege: "The only old and valuable structures built in ancient times". It is seen that students make more detailed statements in their post-perceptions than in their pre-perceptions. It has been revealed that they frequently use expressions such as "past, present" and "building, object, place". At the same time, students were asked to draw pictures based on their post-perceptions. It can be said that the data appearing in the pictures coincides with the data in Table 6. The examples of pictures made by students are shown in Figure 2.



**Figure 2.** From Left to Right: Pictures of Students Coded Ömer, Serra, Ayşegül, Anıl

As seen in the pictures, the students drew pictures in which they expressed their thoughts. When describing historical artifacts with pictures, it is generally seen that the students' last perceptions are related to old buildings.

### **Students' Perceptions of whether There are Historical Artifacts in the City They Live in Before and After the Education**

Before and after the application of the Storyline Method, interviews were conducted to determine the perceptions of the students about the historical artifacts in the city they live in. The findings are given in Tables 7, 8, 9, and 10.

**Table 7.** The Students' Pre-Perceptions about Whether There are Historical Artifacts in the City They Live In

Themes	Number of students (f)
There is	12
no	1
I do not know	7
<b>Total</b>	<b>20</b>

The "are there any historical artifacts in the city you live in?" question asked to the students, and as seen in Table 7, there are twelve of them, one is not, and seven of them do not know. From the students' statements, twelve had perceptions of whether there were historical artifacts in the city they lived in, while eight of them did not. The students stated this as Rüzgar: 'Yes', Belinay: 'None', and Enes: 'I do not know. Table 8 shows the data related to this.

**Table 8.** The Students' Pre-Perceptions about which Historical Artifacts are Found in the City They Live In

Themes	Number of students (f)
Galata Tower	1
Statue	1
Fossil	1
Military (sword-shield)	1
Those who do not know	16

When twelve students who have a perception that there are historical artifacts in the city they live in were asked to say which historical artifact(s) are, four students could answer, while eight students could not. From these results, four of all students had a perception of the historical artifacts in the city where they lived, while sixteen students did not have any perception. Students expressed their perceptions of historical artifacts as follows; Buğra: 'We used to see it in museums, but military things. Swords, shields; Serra: 'There are things they dug from the pit.

Like a statue; Deniz: 'It will be in the museum. Fossils; Ömer: There is a Galata tower. The post-perceptions of the students about whether there are historical artifacts in the city they live in are presented in Table 9.

**Table 9.** The Students' Post-Perceptions of Whether There are Historical Artifacts in the City They Live In

Themes	Number of students (f)
There is	20
no	0
I do not know	0
<b>Total</b>	<b>20</b>

After the education with the Storyline Method, the "Are there any historical artifacts in the city you live in?" question was asked to the students, as seen in Table 9. All twenty students had the post-perception that there is a historical artifact in the city where they live. All of the students answered the interview question as "yes". The students' perceptions about which historical artifacts are given in Table 10.

**Table 10.** The Students' Post-Perception about Which Historical Artifacts Are in Their City

Themes	Number of Students
Galata tower	20
Maiden's Tower	18
Hagia Sophia	19
Topkapı palace	16
Dolmabahçe Palace	19
Sultan Ahmet Mosque	2
Basilica Cistern	1

When the students were asked to argue which historical artifact(s) they were, they said the historical artifacts in Table 10. This is followed by the Maiden's Tower, Hagia Sophia, Topkapı, Dolmabahçe Palace, Blue Mosque, and Basilica Cistern. From these results, the education made by the Storyline Method affects the perception of the students about the historical artifacts in the city they live in.

### **Students' Perceptions about the Importance of Historical Artifacts Before and After the Education**

Table 11-14 show that the data on students' perceptions of whether historical artifacts are important and, if so, why they are important before and after the application of the Storyline Method.

**Table 11.** The Students' Pre-Perceptions about Whether Historical Artifacts Are Important or Not

Themes	Number of students (f)
Important	16
It does not matter	0
I do not know	4
<b>Total</b>	<b>20</b>

Before the education, the students were asked the "Are historical artifacts important/not important?" question asked, as seen in Table 11. There were 16 students who stated that historical artifacts are important, and four students had no idea. From these data, 16 students had a perception of the importance of historical artifacts, and four students did not have any perception. The pre-perceptions of students about why historical artifacts are important are presented in Table 12.

**Table 12.** The Students' Pre-Perceptions about Why Historical Artifacts Are Important

Themes	Number of students
Because they are old	5
Because they are valuable	1
Because people need	1
I do not know	13

"Why are historical artifacts important?" was asked to 16 students who have the perception that historical artifacts are important. As seen in the themes in Table 12, seven students had a perception that historical artifacts are old and valuable and people need them. One of the students Kerim Alp expressed this: "Because they are historical artifacts, they are in the past", Deniz: "Because it is valuable" and Fatih Eymen: "So that people can buy it if they need it." It was revealed that the other thirteen students did not have any perception of this issue. The perceptions of the students on whether the historical artifacts are important after the education are presented in Table 13.

**Table 13.** The Students' Post Perceptions of Whether Historical Artifacts Are Important or Not

Themes	Number of students (f)
Important	20
It does not matter	0
I do not know	0
<b>Total</b>	<b>20</b>

After the education with the Storyline Method, the students were asked the "Are historical artifacts important/not important?" question, and all of the students had a perception that historical artifacts are important. The data regarding the students' post- perceptions of why historical artifacts are important are presented in Table 14.

**Table 14.** The Students' Post-Perceptions about Why Historical Artifacts are Important

Themes	Number of students
To understand/remember the past	10
To see how and where ancient people lived	9
Because they used to be	3
For tourists to come to our country	2
Because they are valuable	2

When the students were asked why historical artifacts are important, the themes in Table 14 emerged from their answers. Regarding why historical artifacts are important, the students mostly had the perception that they were "important for understanding/remembering our past". Kerim Alp: "It is very important because they tell us about the past." Ayşe Miray: "It is important. Because it reminds us of the past." On the other hand, it was revealed that the students had the perception of "to see how and where the old people lived", which they often included in their statements. Ömer said: "It is very important because it tells us where and how people lived in the past, and Deniz: 'It is important for us to see them because they were used in the past. To see what ancient people did.' In addition to the statements, some students had the perception that historical artifacts are important because "tourists come to our country, they were made in the past and they are valuable". It is seen that students' post-perceptions about why historical artifacts are important are more than their preliminary perceptions. From these results, the education made with the method of the storyline had a positive effect on students' understanding and interpretation of historical artifacts.

### **Students' Perceptions Regarding the Preservation of Historical Artifacts Before and After the Education**

Tables 15, 16, 17, and 18 show the data on students' perceptions of the preservation of historical artifacts before and after the application of the Storyline Method.

**Table 15.** The Pre-Perceptions of Students about the Necessity of Preserving Historical Artifacts

Themes	Number of students
We must protect	15
We must not protect	0
I do not know	5
<b>Total</b>	<b>20</b>

The data obtained to reveal the perceptions of the students regarding the preservation of historical artifacts before the education is available in Table 15. Before the education, it was observed that 15 students had a perception that historical artifacts should be protected, while five students did not have any perception. The data on the perceptions of fifteen students with perceptions about why/how historical artifacts should be preserved are given in Table 16.

**Table 16.** The Pre-Perceptions of Students about Why/How Historical Artifacts Should be Preserved

Main Themes	Sub Themes	Number of students
Reason	In order not to be stolen	1
	Because they are valuable	1
	In order not to break	1
	Since it cannot be done in the future	1
	Because it reminds me of old things	1
	I do not know	15
<b>Total</b>		<b>20</b>

Before the education, the sub-themes in Table 16 were obtained from the statements of the students about why/how to preserve historical artifacts. According to these data, five of the students had a perception about why it should be protected, but they did not have any perception about how it should be protected. Bilal expressed his opinion as "If we do not protect it, the thieves outside will steal it", and Ege: "Because it was produced in the past, it cannot be produced in the future, so we need to protect it". It was seen that the other ten students who had a perception about protection did not have any perception about why and how it should be protected. From the results in Table 15 and Table 16, 15 students did not have any perception about why/how historical artifacts should be preserved. The findings regarding the perceptions of the students regarding the preservation of historical artifacts after the education are presented in Table 17 and Table 18.

**Table 17.** The Students' Post-Perceptions of Whether Historical Artifacts Should be Preserved or Not

Themes	Number of students
We must protect	20
We must not protect	0
I do not know	0
<b>Total</b>	<b>20</b>

After the education, the perceptions of the students regarding the preservation of historical artifacts are given in Table 17. From these findings, all of the students had a perception of the preservation of historical artifacts. The students stated this; Rüzgar: 'We need to treat historical artifacts kindly and politely. We will not harm them. And we will protect it.' Belinay: "We should not damage historical artifacts. We should not pollute them.' The students' perceptions about why/how we should protect historical artifacts are presented in Table 18.

**Table 18.** The Students' Post Perceptions about Why/How Historical Artifacts Should be Preserved or Not

Main Themes	Sub-Themes	Number of Students
Reason	For telling the past	16
	To be able to visit	8
	Because they are valuable	6
	In order not to be stolen	4
	Since it cannot be done in the future	2
How	We must not break/scratch or damage	16
	We must warn the offenders	8
	We must preserve it in museums	7

After the education, all of the students had a perception about why/how historical artifacts should be preserved. The perceptions of the students were gathered under the themes in Table 18 and presented. From these findings, the students' perception of why historical artifacts should be preserved is mostly because they tell the past. When examining the other perceptions of the students, they had the perception of 'to be able to visit/travel, because they are valuable, not stolen and cannot be done in the future. Ömer: "It is very important because it tells us where and how people lived in the past." Ege: "Because there are structures built in the past. In other words, because they are the only one that has not been made." Serra expressed her thoughts "Because they are very valuable and remind us of the past". When examining the post-perceptions of the students on how to protect historical artifacts, it is seen in Table 18 that although not all of them had pre-perceptions about how to preserve historical artifacts, they all had post-perceptions after the education. It has been observed that the students mostly had the perception of 'we should not break, scratch or damage' regarding how to protect historical artifacts, and at the same time they had the perception that 'we should warn those who harm and protect them in museums'. The students expressed; Bilal from the students: 'Those who want to steal, we must protect them from thieves. We should not touch. We should not break them.' Kerim Alp: 'We should not harm them. We must protect. We should warn those who harm them.' and Ege: 'We should be in the museum to protect them,

we should not get too close to them while visiting the museum. We should not do any harm.' The findings show that the Storyline Method has a positive effect on children's perception of why/how historical artifacts should be preserved.

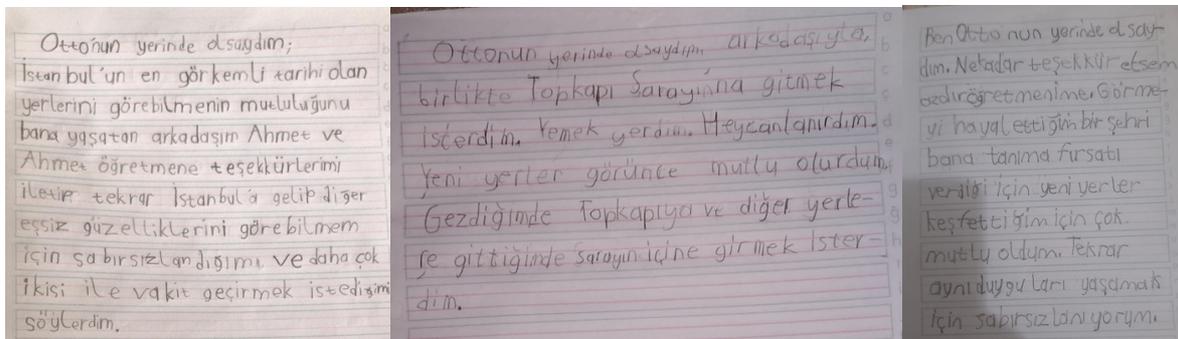
### Feelings and Thoughts about Historical Artifacts after the Education

After the education, the feelings and thoughts that the students wrote about the historical artifacts from the letters they wrote about how they would feel if the character in the story were in their place were examined and the findings are presented in Table 19.

**Table 19.** The Students' Feelings and Thoughts about Historical Artifacts

Feelings and Thoughts	Number of Students
Happiness	20
Excitement	12
Travel Request	10
Impatience	8
Request for suggestion	8
Wonder	7
Dream	6
Feeling lucky	5

From the letters written by the students at the end of their education, visiting and seeing the historical artifacts made them feel happy the most. However, historical artifacts excited them, and made them want to visit more historical places and places, and they felt impatient for it; they were curious about the historical artifacts they had not seen and dreamed about them. At the same time, they felt lucky to be able to see and visit these historical artifacts and they wanted to tell those around them about these historical artifacts and suggest that they go and see them too. The examples of student letters are shown in Figure 3.



**Figure 3.** Letters from Students with the Code Buğra, Zeynep, Rüzgar from Left to Right

As presented in Figure 3, Buğra thanked his teacher for giving him the opportunity to show him the most magnificent places of Istanbul and that this happiness also created a sense of wonder

in him, as "I cannot wait to come back to Istanbul and see the unique beauties". Zeynep, one of the students, stated that she wanted to go to Topkapı Palace with her friends, to visit it and see new places. The feelings he felt when he saw the new places in his letter were, "I would be excited. I would be happy to see new places". One of the students, Rüzgar, thanked his teacher for the opportunity to show him places he had not seen before, and in his letter, the following feelings drew his attention; "I was very happy to discover new places as it allowed me to get to know the city I dreamed of seeing."

## **DISCUSSION**

In this research, the effect of the Storyline Method in Museum Education on students' understanding and interpretation of historical artifacts was examined. Regarding the first sub-goal of the research, nine students did not have any thoughts about the concept of historical artifacts; the last perceptions of the concept of historical artifacts after the education had a more explanatory idea than the pre-perceptions of all students, and they expressed these and reflected them on the pictures in more detail.

In addition, sub-themes such as "the past, valuable building" that emerged while the students were describing the historical artifact after the education showed that they put forward more diverse, correct, and understandable concepts in describing the historical artifact according to the students' pre- perceptions. This finding is in line with the result that Tepetaş & Haktanir (2013) applied the Storyline Method to increase the concept knowledge level of children positively in favor of the students, which revealed the permanence of learning; It supports Özden's (2012) study that found that the Storyline Method has a positive effect on students' learning of concepts and that students have positive views about the Storyline Method.

As a result of the interviews to determine the perceptions of the students about the historical artifacts in the city they live in before and after the application of the Storyline Method in museum education, which is the second sub-purpose of the research, 12 of the students knew the historical artifacts in the place they lived but there were only four students who gave the name of a specific historical artifact. After the education, all of the students said that they knew the historical artifacts in the city they lived in and counted the historical artifacts. This finding created awareness and learning effect on the students' final perceptions of museum education after applying the Storyline Method education in this research. These findings support the conclusion that the Storyline Method, which was reached by Toy & Akpınar (2020) in the literature, is very effective in the teaching of history-themed learning outcomes. It also overlaps with the findings of Bozdoğan & Sünbül (2016) that museums are perceived by students as a place with the function of transferring knowledge and culture from the past to the present.

According to the findings of students' perceptions about whether historical artifacts are important and why they are important before and after the application of the Storyline Method in museum education, there were only seven students had a post-perception that historical artifacts are important and students expressed this as "they are old and valuable and they are needed by people"; but after the education, it concluded that the post-perceptions of all of his students are that historical artifacts are important. The answers given by the students in their last perceptions are remarkable, and it was observed that the students mostly used expressions such as "understanding the past, remembering, understanding the places where people lived in the past". With this result, the traces of historical empathy can be seen in the perceptions of the students about the importance of historical artifacts after the storyline education. This finding supports the conclusion in McNett's (2016) study that through stories, teachers can attract students' attention, create a more social atmosphere, and stimulate their students' emotional and cognitive abilities. Aktin's (2017) study coincides with the finding that concepts such as change and continuity over time can be perceived through museum education and that they can construct their past life in their imaginations by using concrete objects, teacher support, and a limited historical empathy skill. This result also supports Yilmaz & Şeker (2011) that museum visits contribute to the development of students' historical thinking skills. In addition, the fact that the number of answers given to the questions about why and how historical artifacts should be preserved and the number of answers given according to the students' last perceptions is varied, may also be an indication that the cognitive structures of the students are supported in this process. The studies in the literature (Dilli & Dümenci, 2015; Tozduman Yaralı & Güngör Aytar, 2021) have shown that the Storyline Method has an effect on students' various cognitive processes and critical thinking skills.

In the findings related to the students' perceptions of the preservation of historical artifacts before and after the application of the Storyline Method in museum education, which is the fourth sub-goal of the research; the students had pre-perceptions that historical artifacts should be preserved, but only five students expressed the reasons for this. After the education, all of the students stated the preservation of historical artifacts and the reasons for this. But the remarkable situation is that the answer "we should preserve it in the museum" regarding the question of how we should preserve it is the minority of students who have the post perception. . There may be two possibilities here, the first is students' perception of museums as a place where historical artifacts are only exhibited. Secondly, students may have had the last perception of "we must not break, we must not draw" and they may have seen the primary responsibility for the preservation of historical artifacts since the method of storyline makes students feel "responsible" and museum education includes an approach that brings "cultural heritage awareness". Üztemur et al. (2018) stated that the activities applied in museums and

historical places develop students' social studies-specific skills; Bülbül (2017) contributed to creating awareness of cultural heritage in students through museum education.

The findings obtained from the diaries of the students about the feelings and thoughts about historical artifacts after the storyline education in museum education determined that the students mostly had the feelings of "happiness, excitement and the desire to travel" towards historical artifacts, and they also write the feelings of "making suggestions, curiosity, dreaming, feeling lucky". This finding shows that the Storyline Method makes an effective influence on museum education. In addition, the sections in the letters in which they expressed their feelings that started as "if it were me..." showed that the students emphasized the feeling of "empathy" and talked about this situation with satisfaction, and they felt the desire and motivation to see new places. In fact, among the benefits of the Storyline Method are supporting cognitive processes and creativity, activating empathy, curiosity, and motivation of students. The following studies support this finding of the research; Gocen Kabaran & Duman (2021) revealed that the method of the storyline had a positive effect on learning and study strategies.; Dogan (2021) revealed that learning with this method will guarantee a more permanent, enjoyable, and sustainable structure. In the studies conducted by Ahlquist (2011), Avci & Yüksel (2013), and Dös (2015)), the Storyline Method increased the academic success and motivation of the students and made the lessons fun and enjoyable; Rahiem (2021) found that the Storyline Method motivates students, and supports learning and allows teachers to adopt innovative and improved teaching methods. In addition, the definitions made by the children as "the city I dreamed of" in their letters are an indication that children use their creative thinking skills as well as their feelings of happiness, excitement, and curiosity during the storyline. The research findings by Bacak (2008), McBlain (2007), and Şekerci et al. (2018) are similar to the findings in their studies that the Storyline Method has a positive effect on students' creative thinking skills.

## **CONCLUSION**

This research had positive results regarding the effect of the Storyline Method in museum education on the students' perception and interpretation of historical artifacts. As a result of this research, the method of the storyline in accordance with the skills of perception, interpretation, creating new ideas from existing thoughts, and drawing conclusions related to life, which is required in museum education and aimed to be gained by the student, is an approach that allows the student to internalize their cultural and historical knowledge in a very short time. The limitation of this research is primary school students' perceptions of historical artifacts with the Storyline Method on museum education. However, in further studies, it is recommended to carry out studies that can provide students with permanent learning by using their cognitive and affective skills in a short time on historical, cultural and value-containing subjects at upper-class levels.

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**Appendix 1.** Examples of products released during the education process.

The photos below show all the products and their development of only 1 student before, during and after the education process.



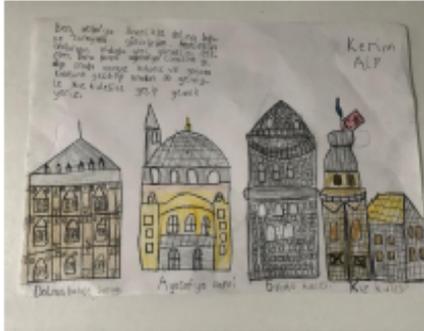
Tarihi eser deyince  
aklına ne geliyor?  
(ilk resim)

- What comes to mind when you think of historical artifacts? (first picture)



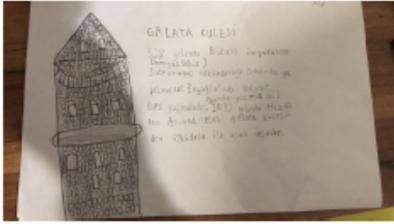
Otto'yu çiz. Sence  
özellikleri neler olabilir?  
(karakter)

- Draw Otto. What do you think its features might be? (character)



Ahmet öğretmen  
yeniye olduğun  
Otto'yu neye  
götürürdün  
(mekan)

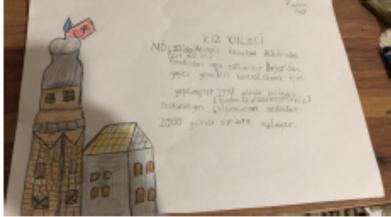
- If you were Ahmet teacher, where would you take Otto?



Dersin sonunda  
ne öğrendin?  
(günlük)



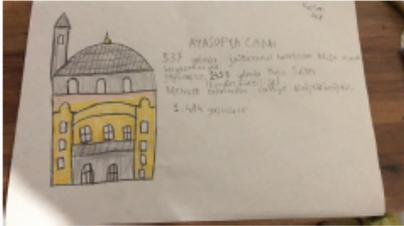
\*What did you learn at the end of the lesson? (diary)



Ders sonunda  
ne öğrendin?  
(günlük)



\*What did you learn at the end of the lesson? (diary)



Dersin sonunda  
ne öğrendin?  
(günlük)



\*What did you learn at the end of the lesson? (diary)