

ORIGINAL ARTICLE

Determining the Classroom Teachers' Opinions on Museum Education

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Ethical Statement

The decision of the Istanbul University-Cerrahpaşa Rectorate, Social and Humanities Research Ethics Committee Presidency dated 04.05.2021 and numbered 2021/145 was an approval. The committee found the research in compliance with the principles of the Ethics Committee. All teachers participating in the research marked the consent box to indicate their voluntary participation.

Funding Information

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Conflict of Interest

No conflict of interest is present in the conduction or the reporting of this research.

ABSTRACT

The aim of this research is to determine the classroom teachers' opinions on museum education. The research was conducted by adopting the qualitative method and case study pattern. The study group of the research consisted of 17 classroom teachers working in public primary schools in the Esenyurt district of Istanbul in the second term of the 2020-2021 academic year. Data were collected with a semi-structured interview form prepared by the researcher. Content analysis technique was adopted in the analyzes and the data obtained from the opinions of the teachers were divided into codes and categories. As a result of the research, the definitions of the teachers for museum education have been divided into the categories of "Culture and Heritage Education", "Non-class Education", "Experience-Based Education", "Alternative Education", "Art Education" and "Creative Thinking Education". In addition, it has been determined that museum education is deemed necessary in terms of "Teaching and Awareness Raising", "Learning Environment and Experience" and "Development of Personal and Social Skills" categories. Opinions about the teachers' adequacy in museum education and their inadequacy have been expressed in similar numbers with the categories of "Being Adequate" and "Being Inadequate", and the opinions on the planning and implementation of museum education have been explained under the categories of "Designing and Implementing Activities", "Instructor and Planning", "Preparation and Evaluation before the Museum Visit" and "Innovative Approaches and Resources".

Keywords: Museum education, Classroom teacher, Primary education.

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INTRODUCTION

The concept of education is not just a concept to be limited to school, but is considered as an ongoing activity in all areas of life. Although schools have an important responsibility to provide students with gains towards the goals in the curriculum and syllabus, educational activities are also carried out in non-school environments. As a matter of fact, libraries, historical places and museums are also considered valuable institutions in terms of education and training process. Children learn at their own pace in museums, which are formally informal environments in traditional classrooms (Falk & Dierking, 2000). As Weber (2022) states, museums provide deeper content in the process of presenting the requirements of the curriculum to teachers by providing a richness that traditional classroom methods cannot provide in the education process of students.

With the museum pedagogy that emerged at the beginning of the 19th and 20th centuries, museums have become important in terms of education and the process of educating individuals with materials that have universal values has begun (Taranova, 2020). In addition, the perspective on museums has turned into environments that disseminate information and encourage students' interpretation and creativity in experiences, rather than museums as institutions, cultural places and attractive places to visit (Kalamees-Ruubel & Läänemets, 2012). As a matter of fact, museums are now considered environments where there are objects that allow individuals to explore by touching and questioning, and to make investigations in this process, as well as exciting objects (Andre, Durksen & Volman, 2016). Therefore, it has been possible for individuals to understand real events through objects and to have fun in this process with museum visits. In fact, this process supports the formation of the concept of museum education. However, as Chiovatto (2020) states, some of the difficulties encountered regarding the value given to the process in museum education arise from the existence of different ideas about museum education. Museum education is the way museums provide a learning environment where visitors can experience learning (Singh, 2004, p. 72). Therefore, since learning takes place where there are all the elements that encourage learning, it is thought that the environment and objects in museums help individuals achieve various gains through concrete experiences.

Museums, which have missions such as educating people from all walks of life, increasing employment opportunities and trying to serve the empowerment of people all over the world, have started to be considered by educational institutions as environments that encourage active learning in recent years (Zarrin & Farha, 2022). With the innovations made in undergraduate programs regarding the training of teachers in Turkey, and within the scope of vocational knowledge elective courses, the beginning of giving courses on non-school learning environments and museum education to teacher candidates is an indication of this point of view (YÖK, 2018). With these practices, it can be said that starting from primary school, education about out-of-school education environments and museums has been started to be given within the scope of the curriculum (Duban, 2019). Thus, by including museum education in teacher education, it will be possible for teacher candidates to have the knowledge and skills for museum education, which has become such an important field when they start the profession. It can be said that good practices related to museum education, especially starting from primary school and even pre-school, can further develop students' skills such as research, inquiry and creativity.

Considering the importance of the basic education level in the lives of individuals, there are research on museums conducted with classroom teachers (Duban, 2019; Moisan, 2009; Mpho & Anthony, 2012) and classroom teacher candidates (Gündüz, Başpınar, Taş & Büyükkarcı, 2017; Lemon & Garvis, 2014; Mentiş-Taş, 2012; Öner, 2022; Şekerci,

2022) in the literature. In the research carried out for the purpose of improving the education-teaching activities and the teaching-learning process, it is sometimes unsuccessful to eliminate the problems experienced in schools. However, research on museums is of great importance in order to strengthen the relations and cooperation process of museums, which are considered non-school learning environments, with schools (Hein, 2006). The beginning of these studies at the basic education level has an important role in this respect. For this reason, it is thought that determining the opinions of teachers about museum education and revealing the applications that are seen as missing in this process will contribute to the support of education in museums. Therefore, the research aims to determine the opinions of classroom teachers working at the basic education level about museum education.

Purpose of the Research

In order to determine the classroom teachers' opinions on museum education, the answers of the teachers were investigated within the framework of the following questions:

- How do classroom teachers define museum education?
- What do classroom teachers think about the necessity of museum education?
- How do classroom teachers evaluate their self-efficacy for museum education?
- What do classroom teachers think about the planning and implementation of museum education?

METHOD

In this section, information about the design of the research, the study group, the data collection tool about how the data were collected, and the process of analyzing the data are given.

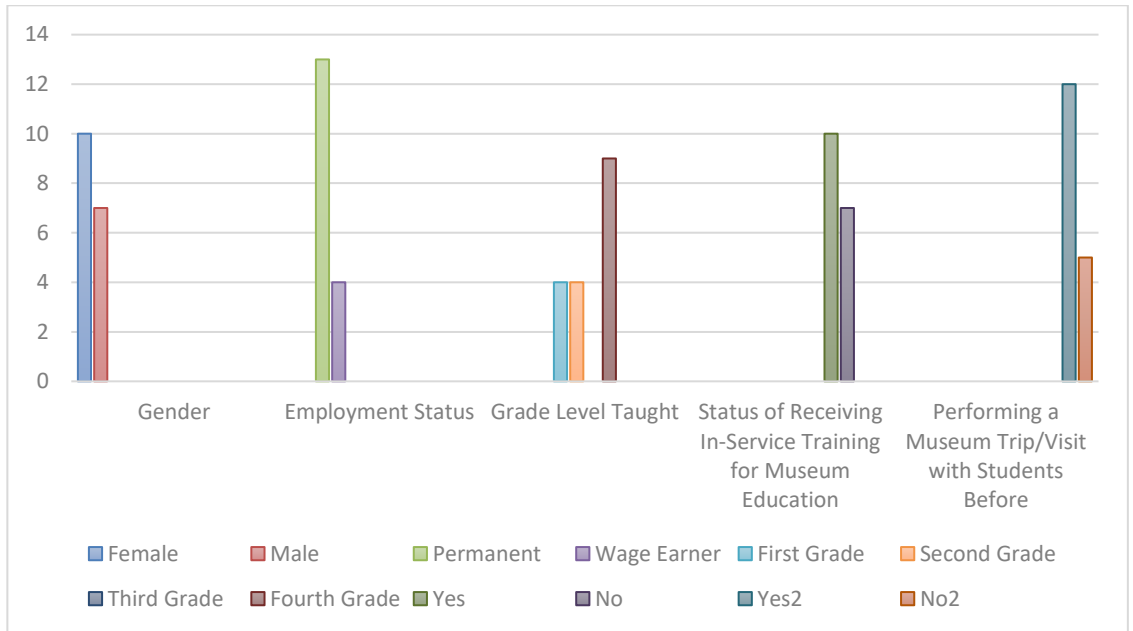
Research Design

This research, in which the classroom teachers' opinions on museum education were tried to be determined, was carried out with qualitative method and case study design. In qualitative research, perceptions and events are handled in their natural environment by making observations, conducting interviews with people or collecting and analyzing documents (Yıldırım & Şimşek, 2008). Case studies, on the other hand, are considered research conducted by interviewing individuals, conducting observations or collecting various documents in order to reveal a detailed and in-depth perspective on a subject or phenomenon (Coombs, 2022). Therefore, within the framework of the method and design of the research, it has been tried to reveal how the classroom teachers define museum education, how they think about the necessity of museum education, their self-efficacy for museum education, and their thoughts about the planning and implementation processes of these educations so that museum education can be effective.

Study Group

The study group of the research consisted of 17 classroom teachers working in public primary schools in the Esenyurt district of Istanbul in the second term of the 2020-2021 academic year. The convenience sampling method was preferred in the selection of the study group of the research. Convenience sampling is one of the improbable sampling types that gives the opportunity to work with target groups suitable for desired characteristics such as geographical

proximity, and being in a certain place (Dörnyei, 2007). An advantage of this type of sampling is that it also depends on the motivation of the participants in the research, so the participants' interest in the subject can also support their motivation (Stratton, 2021). Since the results to be obtained with this sampling type do not aim to generalize to any population, it has been tried to understand how the perceptions are specific to the study group. The demographic characteristics of these teachers are given in Graph 1 below.



Graph 1. Distribution of classroom teachers in the study group according to their demographic characteristics

According to Graph 1 above, 10 (59.0%) of the classroom teachers participating in the research are female and 7 (41%) are male. Of these teachers, 13 (76.0%) are permanent and 4 (24.0%) are wage earners. In addition, 4 (23.5%) of these teachers teach first grade, 4 (23.5%) second grade, and 9 (53%) fourth grade. At the same time, 10 (59%) of the teachers received in-service training on museum education, while 7 (41%) did not receive any in-service training on museum education. Finally, 12 of these teachers (71%) had previously visited a museum with students, while 5 (29%) did not visit a museum with students.

Data Collection Tool

In the study, a structured interview form without guiding questions developed by the researcher was used to determine the opinions of classroom teachers about museum education. In collecting the data, the interview form was prepared online and sent to the teachers via e-mail and filled in. The interview form consists of three parts. In the first part, instructions on filling out the form were presented to the teachers regarding the purpose and scope of the research. In the second part, there is a section that includes personal information about the teachers who will participate in the research. In the third part, there are 4 questions developed and finalized by the researcher by taking the opinion of the experts in the field of educational sciences.

Data Analysis

The analysis of the data was carried out with the content analysis technique. Content analysis As Hsieh and Shannon (2005) stated; it is an analysis method carried out to perform the coding and classification processes of the themes and to interpret the data contents in the obtained texts subjectively. In other words, content analysis is carried out in order to make sense of the contents of the data in the audio recordings obtained with text, pictures, symbols or interviews (Gheyle ve Jacobs, 2017). Therefore, the interview forms sent to the classroom teachers via e-mail were collected by e-mail after they were filled. Interview forms were first put in a row and each question was transferred to a separate Word file. Afterwards, the answers given to each question were read by both researchers and coded. A consensus was reached between each other's coding, and then the categorization process was followed and reliability was tried to be ensured. Then, the findings obtained from the answers are tabulated and given in the findings section. In addition, in order to ensure the reliability of the data, some teacher responses from which codes and categories were obtained are given under one-to-one tables. In this process, code names such as T1, T2, T3... were given to the teachers in terms of confidentiality of teachers' information.

Validity and Reliability

In order to ensure the validity of the research, while the interview form was being prepared, research conducted on museum education on teachers was examined in the literature. In this context, the questions created in order to determine the opinions of teachers about museum education, considering the field, subject and scope of the research, were examined by two field experts, 1 from educational sciences and 1 from classroom teaching. Before the data were collected, the interview form was filled out by 2 classroom teachers and their answers were checked within the framework of a pilot application. In this context, it was seen that the purpose of the research was understood correctly. In addition, in terms of reliability, the answers of the teachers were coded by another researcher from the field of educational sciences, allowing the coding to be compared. The execution of the coding and interpretation processes by more than one researcher is important for the accuracy of the data obtained from the research (Miles & Huberman, 1994). In addition, when there was an incomprehensible situation regarding the answers of the teachers in the research, participant confirmation, that is member control, was ensured. The teachers were called by phone and the parts that were not understood were asked to them personally. Member control; is to present the report or analyzes obtained from the data related to the research to the participants and allow them to review this report or analysis. This practice is important for the accuracy and validity of the report or data (Braun & Clarke, 2013).

FINDINGS

In the research, first of all, the classroom teachers were asked: "How would you define museum education? Please explain.". The codes and categories obtained after the analysis of the answers given are given in Table 1 below.

Table 1. Classroom teachers' views on the definition of museum education

Categories	Definitions (Codes) for Museum Education	Teacher Codes	f	Total
Culture and Heritage Education	On-site/concrete training on national culture and heritage items	T2-T3-T10-T12-T14-T16	6	8
	Introducing the museums, which are the places where works of art are kept, and gaining the rules of behavior in these places.	T13-T17	2	
Non-class Education	Non-class education reinforces the subjects in the classroom and provides permanent learning	T1-T8-T11-T13-T15	5	5
Experience-Based Education	Education that allows individuals to gain experience by doing and living through active participation according to their interests.	T1-T5- T11-T13-T16	5	5
Alternative Education	An alternative education method that offers opportunities apart from traditional education with different methods and techniques.	T1- T2-T4-T10	4	4
Art Education	The training given to gain the gains in the curriculum through works of art	T6-T9	2	2
Creative Thinking Education	A phenomenon that arouses imagination and supports creativity in primary school	T7	1	1

As can be seen in Table 1 above, the definitions of classroom teachers regarding museum education are grouped into 6 categories. The category with the most definitions among these was the category of "Culture and Heritage Education". It has been determined that the majority of the definitions (f=6) given by the classroom teachers in this category are "On-site/concrete training on national culture and heritage items". In addition, it was determined that the category of "Culture and Heritage Education" was followed by the categories of "Non-class Education" and "Experience-Based Education" with more definitions than other categories. Therefore, it was determined that classroom teachers mostly perceive museum education as a type of education in which elements related to culture and heritage are introduced. In addition, it was determined that they evaluated it as non-class education and experience-based education in which more opinions were expressed compared to other categories. Some of the views that led to the formation of these categories about the definition of museum education are as follows:

"Museum education is the planned execution of museum tours in line with a specific purpose/gain. Museum education is an educational activity that aims to provide students with gains through various structures, objects, works of art and science, and to ensure their social and cultural development." T6

"Museum education is one of the most effective non-class learning, acculturation and socialization environments." T8

"I can define museum education as the opportunity for participants to reach history, art and culture concretely." T14

"We can define it as a type of education done by seeing the national culture and heritage items in place..." T16

As it can be understood from the definitions of the classroom teachers about museum education, it is informing about the cultural and inherited works of art of museum education, applying them in out-of-class environments, gaining experience in real life with the active participation of students, an alternative method to traditional education, a way of transferring the gains in the curriculum through works of art. In addition, it can be said that it is perceived as a type of education that increases creativity.

Secondly, the following questions were asked to primary school teachers in the study: "What are your thoughts on the necessity of museum education? Please explain.". The codes and categories obtained after the analysis of the answers given are given in Table 2 below.

Table 2. Teachers' views on the necessity of museum education

Categories	Codes	Teacher Codes	f	Total
Teaching and Awareness Raising	Ensuring permanence	T1-T4-T6-T9-T10-T11-T12-T13-T14	9	50
	Gaining an awareness of history	T2-T3-T7-T8-T9-T12-T15-T16-T17	9	
	Providing the transfer of historical and cultural values	T2-T3-T5-T8-T13-T15-T16	7	
	Providing concretization	T5-T6-T7-T10-T14-T15	6	
	Providing empathy with the historical environment/time	T1-T3-T8-T13-T15-T17	6	
	Developing thinking skills	T7-T10-T15-T17	4	
	Provide active learning	T1- T10-T12-T15	4	
	Developing observation, evaluation and classification skills	T3-T10-T15	3	
Learning Environment and Experience	Developing concept knowledge	T3-T13	2	10
	Providing a rich learning environment (visual, auditory, etc.)	T6-T11	2	
	Aesthetic awareness	T10-T15	2	
	Developing a sense of curiosity	T11-T12	2	
	Being attractive and motivating	T11-T12	2	
	To be entertaining	T1	1	
Development of Personal and Social Skills	Providing interdisciplinary learning	T6	1	3
	Developing teamwork skills	T7	1	
	Making learning easier	T11	1	
	Teaching museum rules	T13	1	

As can be seen in Table 2 above, the opinions of classroom teachers on the necessity of museum education are grouped into 3 categories. Among these, the category with the highest number of opinions was the category of "Teaching and Raising Awareness". It has been determined that the majority of the statements (f=9) of the classroom teachers in this category are "ensuring permanence" and "gaining the awareness of history". In addition, it was determined that these expressions were followed by the expression "providing the transfer of historical and cultural values" more than the other expressions. Therefore, it has been determined that classroom teachers mostly consider museum education necessary in terms of teaching and raising awareness. In addition, 1 classroom teacher stated that museum education is not suitable for every subject area and is not necessary in this respect. Some of the views that led to the formation of these categories about the necessity of museum education are as follows:

"It is a necessary method both because it is an environment where active learning can be provided and because it provides permanence. I attended drama training at the museum once. The experience of Bursa City Museum, which I have visited many times, became enjoyable for me for the first time. Before the word museum was coded in my mind as a boring place. The training I attended changed my perspective." T1

"Because the more concrete examples students see while learning about our history and culture, the more permanence they

provide in their knowledge.” T4

“Because, on the one hand, museums realize their purpose of being a cultural environment with the works that they collect, store, archive and protect due to their subject, on the other hand, exhibition etc. In this way, it achieves the feature of being a whole by realizing its educational purpose. With the elements they contain, museums offer us the opportunity to evaluate the events in the time period they occur and to compare them with the time we live.” T8

“Museum education is especially necessary because it reinforces historical process-based learning and makes it more meaningful.” T9

“...Presents first-hand data to the participant. It enables us to learn about our history, culture and national values. It contributes to our observing and thinking differently, as well as helping us to recognize different country cultures...” T15

As can be understood from the opinions of classroom teachers about the necessity of museum education, museum education involves following a permanent learning process, gaining historical and cultural awareness, teaching with concretisations, and establishing a connection between time and environment in the historical process. In addition, thanks to the active learning provided by museum education, it is possible to try to develop students' conceptual knowledge by providing features such as supporting thinking skills, on-site observation, evaluation and classification. In addition, it can be said that museum education is considered necessary in terms of providing students with rich learning opportunities with features such as attention, curiosity, entertainment, aesthetics, gaining teamwork skills, learning museum rules and realizing interdisciplinary learning.

Thirdly, the following questions were asked to primary school teachers in the study: “How would you evaluate your self-efficacy level towards museum education?” Please explain.”. The codes and categories obtained after the analysis of the answers given are given in Table 3 below.

Table 3. Teachers' views on self-efficacy for museum education

Categories	Codes	Teacher Codes	f	Total
Being Adequate	Competence felt due to in-service training	T8-T11-T12-T13-T16-T17	6	11
	Ability to organize the process before, during and after museum education	T6-T9-T10	3	
	Ability to provide museum education to students and teachers	T8	1	
	Ability to inform students about museums in the surrounding area	T11	1	
Being Inadequate	Due to the fact that in-service training is only theoretical	T3-T5-T11	3	11
	Due to not receiving in-service training	T14-T15	2	
	Due to the short duration of in-service training	T1	1	
	Inadequacy due to the lack of comprehensiveness of the course taken in the undergraduate	T2	1	
	Lack of conceptual awareness of history and materials in the museum	T4	1	
	Insufficient knowledge of the contents of each museum	T9	1	
	Inability to manage student responsibility	T10	1	
Lack of continuity of in-service training	T13	1		

As can be seen in Table 3 above, the self-efficacy levels of classroom teachers for museum education are grouped under two categories “Being Adequate” and “Being Inadequate”. The number of opinions expressed in both categories

was determined as an equal number of 11 each. The most stated opinion in the category of "Being Adequate" (f=6) by the classroom teachers is "Competence felt due to in-service training". The most stated opinion in the category of "Being Inadequate" was determined as "Due to the fact that in-service training is only theoretical" (f=3). Therefore, it is seen that the areas in which the classroom teachers are adequate and inadequate regarding their self-efficacy about museum education differ from each other. However, it is seen that teachers generally focus on in-service training. In addition, while the teachers consider taking museum education as a proficiency situation, since they think that in-service training should be practice-oriented, the opinions about their inadequacy in this field were expressed the most. Some of the views that led to the formation of these categories about self-efficacy for museum education are as follows:

"I can say that I am neither adequate nor inadequate. There is a museum training that I have received in-service through EBA. But although this remains in theory, making it practical will make the training more useful and equipped. In this way, the museum and the transfer will be more professional." T3

"I think that I am inadequate in this field because I have only been trained theoretically. If I had been trained in a practical way by making this practical, I could have been better equipped at the level of self-efficacy." T5

"I find myself adequate because I received in-service training about the museum. Likewise, the fact that we have enough historical information to inform the students about the museums that can be visited around us and the importance of museums supports this. However, in the light of this information, I could have been more pleased to have visited museums, organized various activities, and provided a learning and teaching environment by doing-living." T11

"I think that I have reached a sufficient level in this field by taking in-service training for museum education." T12

It can be said that the classroom teachers' feeling of self-efficacy about museum education is usually due to the fact that they have received museum education as in-service training. With these trainings, it is possible for teachers to gain proficiency in managing the process before, during and after the museum, to educate students and their peers on this subject, and to inform their students about museums. However, while these in-service training remained theoretical without practice, the duration of this training was short and not continuous, the course taken in undergraduate education was not comprehensive, the lack of concept awareness about museums, the lack of sufficient knowledge about museums, the inability of students to manage their responsibilities for museum visits were perceived as inadequacies. Some teachers also stated that they did not receive in-service training in this field.

Fourthly, the following questions were asked to primary school teachers in the study: "How do you think a museum education should be planned and implemented? Please explain.". The codes and categories obtained after the analysis of the answers given are given in Table 4 below.

Table 4. Teachers' views on the planning and implementation of museum education

Categories	Codes	Teacher Codes	f	Total
Designing and implementing activities	Interactive and remarkable activities related to daily life before/after the trip	T1-T3-T7-T8-T9-T10-T11-T13-T14-T16	10	35
	It should be suitable for course content and learning outcomes.	T2-T6-T9-T16-T17	5	
	Must be practical activities	T2-T5-T13-T15	4	
	It should be appropriate for the age/grade level of the students	T2-T5-T7-T10	4	
	Multidimensional thinking skills should be encouraged.	T3-T5-T7	3	
	It must be suitable for readiness	T5-T11	2	

	Images, videos, etc. enriched training should be	T5-T11	2	
	It should be fun and gamified trainings	T6-T11	2	
	Small groups should be formed	T1	1	
	Workshops should be	T3	1	
	Provide permanent learning	T4	1	
Instructor and planning	A detailed museum education plan should be made.	T2-T11-T16	3	
	Must be done by an instructor	T1-T9-T6	3	
	Before the visit, the teacher should have knowledge of the museum.	T6-T9	2	10
	Teachers should be given in-service training	T13	1	
	Planning with students before the trip	T9	1	
Preparation and evaluation before the museum visit	Post-educational learning assessment activities	T6-T9-T10	3	
	Information should be collected about the museum to be visited in advance	T7-T10	2	
	A flexible plan should be prepared	T6	1	
	Guidebooks suitable for each grade level should be prepared.	T2	1	9
	The characteristics of the educational content in the museum should be examined.	T10	1	
	Before the visit, topics related to the museum should be distributed.	T9	1	
Innovative approaches and resources	Virtual + real museum tour (2 stages)	T12-T15	2	
	Using original, innovative and new approaches	T11	1	4
	Every school should have a small museum	T13	1	

As can be seen in Table 4 above, classroom teachers' evaluations on how to plan and implement a museum education are divided into four categories: "Designing and implementing activities", "Instructor and planning", "Preparation and evaluation before the museum visit" and "Innovative approaches and resources". The category in which the most opinions were expressed was "Designing and implementing activities". The most expressed opinion in this category was determined as "interactive and remarkable activities related to daily life before/after the trip". It has been determined that the view that continues this is "It should be suitable for course content and learning outcomes.". Therefore, it has been determined that the most important subject in the process of designing and implementing a museum education is related to the activities. In other words, it is understood that the activities should be motivating for the students to be interested in museums. In this direction, in terms of the functionality of the activities, it is understood that the process should be carried out with applied activities by paying attention to the age and class levels of the students, based on the opinions of the teachers. Some of the views that led to the formation of these categories about the planning and implementation of museum education are as follows:

"A museum education should be appropriate for the class level in which the teacher is taught, and should be appropriate for the semester gains. An application that includes all of them should be designed and then the activities to be done with the students should be given. Museum education plans should be dealt with in detail like annual plans. Booklets can be prepared for museum education at every grade level. These booklets can be both a guide for teachers and activities that students can do during, before and after the trip. In fact, if they contain detailed information about the museum visited, they remain as written documents in the hands of the students. This will increase the efficiency of museum education practices." T2

"It should be planned in a way that will enable students to visit the museum in a meaningful way, arouse interest in children

and be supported by interactive studies.” T8

“First of all, the teacher should visit the museum and its contents beforehand and take the necessary notes. Then, before the trip, a plan should be made with the students and at the same time a plan should be prepared to relate it to the contents of the courses. The subjects that they can research in the museum should be distributed to the students. At the end of the museum education, students may be asked to make a presentation about what they have learned or about their research. In addition, animations can be made using methods such as demonstrations and dramas.” T9

“I think it should be applied in real environment, not virtual. I think planning should be based on learning by experience. The training area should be chosen in accordance with the attention span, perception level, interests and needs of the applied group.” T14

As it can be understood from the opinions of the classroom teachers on the planning and implementation of museum education, interactive activities related to daily life before and after the trip stand out as the most important view in this process. Therefore, it is important that these activities should be appropriate to the course content and achievements, practical, appropriate for the age, class and readiness level of the students, support multidimensional thinking skills, supported with visual videos, entertaining and gamified, aimed at small groups, and supporting permanent learning with workshops. In addition, the role of the instructor comes to the fore in this process, and it was deemed necessary to have an instructor and to make a detailed museum education plan with students, to have information about museums, and to receive in-service training for teachers. Having information about the museum to be visited before the museum visit, the flexibility of the museum education plan to be prepared, having booklets suitable for grade levels and making evaluations about learning after the visits were also considered important in terms of the museum process. The establishment of small museums in schools, the use of original and innovative approaches in the process of museum education, and the realization of virtual tours about museums to visit before real museum visits are also expressed as opinions that cause museum education to be evaluated as innovative approaches and resources.

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

The conclusions reached in line with the findings obtained from the research are as follows:

Classroom teachers' definitions of museum education are gathered in 6 categories: "Culture and Heritage Education", "Non-class Education", "Experience-Based Education", "Alternative Education", "Art Education" and "Creative Thinking Education". The category with the most definitions among these was the category of "Culture and Heritage Education". It has been determined that the majority of the definition given by the classroom teachers in this category is "On-site/concrete training on national culture and heritage items". In addition, it was determined that the category of "Culture and Heritage Education" was followed by the categories of "Non-class Education" and "Experience-Based Education" with more definitions than other categories. Based on these definitions, classroom teachers mostly consider museum education as culture and heritage education. In this context, it has been determined that they state that this training could be carried out in the form of learning and examining the elements related to national culture and heritage on site. In the research of Akman, Özen-Altınkaynak, Ertürk-Kara, and Can-Gül (2015), the majority of preschool teachers defined museum education as "education that allows children to build bridges between the past and the present in order to learn about the past and learn history". In the same research, it was determined

that the definition that followed this definition the most was "enabling children to learn by doing and experiencing and thus facilitating learning". In Solmaz's (2005) research, the majority of social studies teachers' opinions on museum education are; it is in the form of students learning history, culture, findings from the past, and first-hand sources one-on-one, by seeing. Based on the current research, these results of the research are actually similar to each other; in general terms, it can be said that museum education helps establish the connection between the past and the present, provides culture and heritage education, and supports students in learning by doing and experiencing.

Classroom teachers' opinions on the necessity of museum education are grouped in three categories: "Teaching and Awareness Raising", "Learning Environment and Experience" and "Development of Personal and Social Skills". Among these, the category with the highest number of opinions is the category of "Teaching and Awareness Raising". It has been determined that the majority of the expressions stated by the classroom teachers in this category are "ensuring permanence" and "gaining the awareness of history". In addition, it has been determined that these expressions are followed by the expression "providing the transfer of historical and cultural values" more than the other expressions. Based on these statements, primary school teachers consider museum education as an education and a type of education that contributes to students' gaining awareness of history; for this reason, it has been determined that they consider it necessary as a permanent teaching method. In addition, in this process, the learning environment and gaining experience and the development of personal and social skills came to the fore as important reasons for considering museum education as necessary. In Akman et al.'s (2015) research, the reasons why preschool teachers find museum education necessary are mostly providing recognition of the past, culture, history and historical artifacts; establishing a connection between the past and the future; raising awareness; making information concrete and providing permanent learning. In the research of Solmaz (2015), opinions such as providing visual and concrete learning, providing permanent learning and providing social learning came to the fore regarding the advantages of museum education. In Mpho and Anthony's (2012) research, some of the teachers stated that they took their students to museums for observation purposes and because they believed that they would learn better by exposing them to the interactive environment in museums. Therefore, it is necessary to consider the importance of museums in providing permanent education and to be aware that students can more easily obtain important information about their culture and background in social learning environments.

Evaluation of self-efficacy levels of classroom teachers towards museum education was gathered in 2 categories "Being Adequate" and "Being Inadequate". Although the number of opinions expressed in both categories is equal, it is evident that teachers have competency in this field with the view of "competence felt due to in-service training". In other words, it can be said that a museum education, which is taken in the form of in-service training as a vocational education, makes teachers more competent. On the other hand, it has been determined that the fact that the teachers do not receive museum training as in-service training and that the training is only theoretical causes the teachers to feel inadequate in this field. In the research of Kara, Sak, Balçın, and Mertoğlu (2020), the suggestions regarding the organization of museum training by the Ministry of National Education show that there is a need for in-service training in this field.

Finally, the opinions of classroom teachers on how a museum education should be planned and implemented were gathered in the following 4 categories: "Designing and implementing activities", "Instructor and planning", "Preparation and evaluation before the museum visit" and "Innovative approaches and resources". The category in which the teachers have expressed the most opinions is "Designing and implementing the activities". The most expressed opinion

in this category is determined as "interactive and remarkable activities related to daily life before/after the trip". It has been determined that the view that continues this is "It should be suitable for course content and learning outcomes.". That is, the teachers evaluated the activities in the design and implementation of a museum education. In addition, they stated that these activities are compatible with the course contents and achievements, they consist of practical activities, they are according to the age and class level of the students, and they employ the multi-dimensional thinking skills of the students. In addition, the opinions of the teachers were more intense than the others, such as that a museum education should consist of a detailed plan, that learning should be evaluated after the training, virtual and real museum tours should be carried out, and information should be collected about the museum before the visit. In Akman et al.'s (2015) research, preschool teachers stated that most of the preparations they made before going to the museum were to give children preliminary information about the museum and the artifacts in the museum/show their photographs, if any, and to inform them about the rules to be followed in the museum. In the same research, teachers stated that the activities they do most in the museum are to make children observe, to give information about works of art and to make explanations. After the museum visit, the most common activities were for teachers to have their students tell about what they saw, felt, and what drew their attention in the museum, and to have them draw pictures of what they saw in the museum. In the research of Kara et al. (2020), more than other opinions, suggestions were made to the teachers that they should plan a trip, inform the students before the trip, and create study forms in order to make effective use of museums. In addition, more opinions were expressed about the need for museums to expand their guidance services, increase the number of visits to schools, assist schools in this process, and provide museum training by the Ministry of National Education. On the other hand, in parallel with the current research, the results of Solmaz's (2015) research, such as giving preliminary information about the museum before the museum visits and evaluating what is seen in the form of questions and answers after the visit, give an idea about what to do before and after the museum visits.

In line with the results obtained from the research, the following recommendations can be listed:

Since at least one of the definitions of teachers about museum education is creative thinking and art education, creative thinking training and in-service training on art can be given to teachers so that they can support the creativity of their students. However, in the opinions of the teachers about museum education, while the theory density in in-service training is high, the fact that the application is low and the training periods are short is seen as an obstacle. In this direction, it is suggested that the application section should be added to the in-service training in the teacher training to be organized about museum education.

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