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## HOW DO PROSPECTIVE ELEMENTARY SCHOOL TEACHERS EVALUATE PRACTICES IN THE ELECTIVE MUSEUM EDUCATION COURSE ? A CASE STUDY

**Abstract:** Museum education course has been made available as a course of professional knowledge in faculties of education since 2018 so that prospective teachers can use museums as learning environments and so that they can plan and do learning activities in those places. This paper aims to analyse prospective elementary school teachers' views on the elective museum education course. The study was designed as a case study- one of the qualitative research designs. The study group was formed in convenience sampling method. 27 prospective elementary school teachers were included in the study. The research data were collected through the participants' diaries, open-ended survey questions and focal group interviews; and the data were analysed in the descriptive analysis technique. The research results demonstrated that the prospective teachers developed positive perspectives on museums after taking the museum education course. They thought that the course had inculcated in them personal skills and pedagogical skills. Besides, they also stated that they could benefit from museum education activities in creating effective learning environments in the life of teaching.

**Keywords:** Museums, museum education, prospective elementary school teachers.

### 1. INTRODUCTION

Constructivist view affects educational and instructional approaches. Teaching should be done in out-of-school environments which attract students' interest and attention, pique their curiosity, improve their admiration and mentality and motivate them to do research and to solve problems. There are explanations about this situation in various titles of the curricula that were renewed in 2018, and they have been developed based on the constructivist approach since 2005. In this context, attention is drawn to the use of out-of-school learning areas under the heading of issues to be considered in the implementation of Life Studies (MEB, 2018) and Social Studies (MEB, 2018) curricula. In the Science curriculum, it is recommended to use inquiry-based learning strategies in informal learning environments (school garden, science center, museum, planetarium, zoos, botanical gardens, etc.) so that students can learn information meaningfully and permanently (MEB, 2018). In the curriculum of the Visual Arts course, the necessity of integrating subjects related to the field of cultural heritage with museum education is emphasized (MEB, 2018). However, especially in studies conducted in Turkey, it is seen that teacher candidates do not see themselves as competent in developing educational activities in out-of-school learning environments and museums (Arı, 2010; Dılmaç, 2016; Topçu, 2017; Uslu,

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2021). Out-of-school learning environments and museum education courses are included in the renewed teacher training undergraduate programs (YÖK, 2018). With these courses, teacher candidates are tried to gain the skills of creating educational activities in out-of-school learning environments. This study, aims to determine the opinions of the classroom teacher candidates regarding the "Museum Education" course, which was created on the basis of the activity development of the teacher candidates by using the collections and exhibitions in museums, which is one of the out-of-school learning environments. In this way, it is thought that stakeholders in the field of classroom education can gain various knowledge and perspectives. Below, there is a discussion of the literature on the use of museums in museum education and teacher education.

### **1.1. Literature Review**

Museums are one of the environments that can be used for teaching outside of school and affecting the efficiency and quality of the teaching process. According to the definition made by the TDK (2021), the museum is the place or structure where art and science works or objects useful for art and science are stored and showed for public display. It is seen that the museum functions expressed in the definition of museum made by TDK are storage and exhibition. The functions and missions imposed on museums in the contemporary understanding of museology are different. Thus, the definition stating the contemporary functions and missions of museums was made by ICOM (International Council of Museums). Accordingly, a museum is an institution which is non-profit, is open to the public, makes research on materials related humans and to the environment of living, collects such materials, protects them, shares knowledge, eventually displays them for such purposes as investigation, education and entertainment and which has continuity (Mclean, 1996). It is apparent from the definition that the educational functions of museums are also considered in the contemporary conception of museology in a way that is related to the subject of research.

The educational use of museums is dates back to the French Revolution (Hooper-Greenhill, 1992). It can be said that education conducted in museums is informal education and that it is conducted so as to raise public awareness politically (Duncan, 1995; Tanilli, 1996). First educational museums were opened in England in 1894-1895, schools visited those museums and thus school-museum cooperation was made (San, 2001). In addition to that, museums became knowledge-generating institutions with their object-based opportunities in the USA in the late 19th century (Education in American Museums, 2020). According to Özmen (2018), the educational function of museums was understood following world war two. International institutions set criteria for museum education in that period, and thus publications on the issue were made (Akmehmet, 2005). Discussions on museum education in Turkey started in the period after the age of Tanzimat reforms. A number of pedagogical principles and practices in relation to educational use of museums were available in the studies performed in the era especially by Satı Bey and Ismail Hakkı Baltacıoğlu (Adıgüzel and Öztürk, 1999; Ata, 2002; Akyüz, 2016); however, the educational functions of museums in the real sense were understood in the period following the 1990s. In this context, the most important development was, undoubtedly, developing curricula in constructivist approach in 2005. Thus, explanations, recommendations and activities were included in the curricula for Turkish, Visual arts, Life Studies and especially for social Studies course- which were developed in 2005 and which were revised in the following years.

Museum education, whose historical development was briefly described above, can be said to make significant contributions to formal and informal education. From the aspect of its

contributions to formal education, museum education can be defined as the process of teaching in learners knowledge and skills and giving insight by means of displayed collections and artifacts in accordance with the goals of curricula. Paykoç and Baykal (2000) aims of museum education to make students connect with the past and present, get to know the environment they live in and their own culture, develop different perspectives on today's problems and conflicts, appreciate the artifacts and collections exhibited in the museum, and understand their cultural, social and political significance and the development of researcher characteristics. According to Ata (2002) and Önder, Abacı, and Kamaraj (2009), museum education activities can improve students' imagination, comparison, aesthetics, observation, creativity, matching, perception of change and continuity and problem solving skills. There are three stages of the museum education process that will develop these skills in students. These include several activities and educational activities to be carried out before, during and after the museum visit (Atilla & Bulut, 2017; Buyurgan, 2017; Kuruoğlu Maccairo, 2002; Mercin, 2020; Oruç & Altın, 2008). The activities to be done before visiting a museum include preparing the class for the visit psychologically, receiving the necessary legal permissions a the visit and planning the activities to be done during the visit. The stage of visiting the museum is the teacher's implementation of activities he/she had planned prior to the visit. The activities at this stage involve drama activities, doing crossword puzzles, touching, excavations and collection hunting. The activities to be done after visiting the museum involve completing the activities that were not completed during the visit or evaluating the activities done as a class (Mercin, 2006). The purpose of all the activities done is to ensure that the gains available in the curricula are inculcated in learners. Prospective elementary school teachers need to have the required knowledge, skills and be equipped in order for the above-mentioned museum education activities to be efficient and of high quality.

In the relevant literature, it is observed that there are different approaches to educating teachers and teacher candidates in museums. In this context, teachers and pre-service teachers were provided with the museum and the education faculty (Clark, Ensminger, Incandela, & Moisan, 2016; Hamilton & Margot, 2020; Zinicola & Devun-Scherer, 2001) and the school and museum (Chin, 2004; Lau & Sikorksi, 2018; Pickering, Ague, Rath, Heiser, and Sirch, 2012), it is seen that there is an effort to gain knowledge and skills about museum education. In addition, expert museum educators who implement their own curriculum of museums train teachers and teacher candidates (Morentin & Guisasola, 2015), education of teacher candidates in museum school practices (Stetson & Stroud, 2014), in the context of museum education, integrating museum education into undergraduate teaching methods practices such as training (Chin, 2004) also stand out. In order to provide teacher candidates with the necessary knowledge, skills and qualifications in the museum education process in Turkey, YÖK has placed the elective Museum Education course in the teacher training undergraduate program (YÖK, 2018). It can be stated that there are similar aspects between this practice and the approach of raising prospective teachers in the context of museum education expressed by Chin (2004). In this study, it was considered important to determine the opinions of the teacher candidates who took the course in the classroom teaching undergraduate program regarding the learning process in the Museum Education course.

It has been observed that there are studies on the museum education course in the relevant literature. In these studies, it was found that teacher candidates had positive opinions about museum education (Ata, 2002; Demirci, 2009; Spencer & Maynard, 2014; Taş Mentiş, 2012). , 2007; Bret, 2014; Grenier, 2010; Incebacak, 2015; Jung and Tonso, 2006; Lemon and Garvis, 2014; Pickering, Ague, Rath, Heiser and Sirch, 2012; Saxman, Gupta, & Steinberg, 2010; Seligmann, 2014 ; Stetson & Straud, 2014; Tutkun & Acer, 2015). This study investigates the effects of the elective museum education course on prospective elementary school teachers'

perspectives of museums, museum education and visits to museums, and the contributions the course makes to the prospective teachers in terms of knowledge, conception, skills and awareness. It differs from the ones available in the literature in this respect. In addition to that, it is also thought that lecturers who are going to teach the course in the future can also be made to gain considerable knowledge and perspectives with the findings to be obtained in this study. The participants' views on the elective museum education course are investigated with the following questions in the light of what is stated above.

- What are the prospective elementary school teachers' views on museums, museum education activities and visits to museums?
- How do prospective elementary school teachers evaluate the museum education activities?
- What are the prospective elementary school teachers' views on the contributions of the museum education course?

## **2. METHOD**

### **2.1. Research Design**

This study was designed as a case study- which is one of the qualitative research designs. According to Yıldırım and Şimşek (2011), researchers analyse in depth the phenomena or events that they cannot control by focusing on the questions of how and why (what), and thus, they concentrate on how the subject of research affects the research group or the group is affected by the subject. In addition to that, Akar (2016) cites from Woodside that a case study is done under such headings as creating a theory and testing it, telling a story/ drawing a picture and evaluating it. Under the heading of evaluation, sharing the value judgements about the case is focussed on after analysing the curricula, systems or cases. In this context, the target is to investigate and reveal the prospective teachers' views/value judgements in depth in relation to the practices made in the museum education course by focusing on how and why (what). Additionally, efforts are made to find how the museum education course and activities affect the prospective teachers' views.

### **2.2. The Study Group**

The study group was formed base on convenience sampling- one of the purposeful sampling methods. Accordingly, a researcher chooses the case which is within reach and which is easy to reach as the sample (Yıldırım and Şimşek, 2011). The study group in this context was composed of the 27 prospective teachers who were second-year students in the education faculty of a state university in the fall semester of the 2019-2020 academic year and who were taking the elective museum education course. 19 of them were female whereas 8 were male. The participants were not previously given information or guidance in relation to selecting the course.

### **2.3. Data Collection Tools**

The research data were collected through focal group interviews, the prospective teachers' diaries and survey form of open-ended questions. The literature was reviewed while preparing questions for focal group interviews and the survey, and thus provisional forms were prepared. The provisional forms were examined by two experts in the area and by a language expert. The question "why did you select the museum education course? Explain it" was combined with the questions "was there a consistency between your purpose in selecting the course and the process you went through? What would you like to say in this

respect?” in accordance with the feedback given by the experts. Thus, the question was formulated in the focal group interview form as “why did you select the museum education course? was there a consistency between your purpose in selecting the course and the process you went through?” In addition to that, while the question “did the museum education course meet your expectations? Do you think the course was effective? Please make a general evaluation of the course” was the first question in the provisional focal group interview form, it was placed as the second question in the actual form by considering the experts’ opinion. On the other hand, the question “did the course cause a change in your perspective of education? Please explain according to your experience”- which was available in the provisional form- was removed from the actual interview form. The final draft of the focal group interview form contained 9 questions and the open-ended survey form contained 6 questions. The participants also kept diaries after each practice of museum education. The diaries were submitted to the lecturer after the implementation.

#### 2.4. Data Collection

The implementations about the museum education course and process of data collection lasted 15 weeks. The data on the process of implementation are shown in Table 1.

**Table 1.** *The Process of Implementation*

Weeks	Activities	Data collection tools
Week 1	Introduction and informing students of the course	-
Week 2	Museum: the concept and its historical development	-
Week 3	Types of museum	-
Week 4	Museum education: Description, purpose and historical development	-
Week 5	Activities of museum education	-
Week 6	Using museums as a learning environment	-
Week 7	Samples for museum education studies developed and practised by Turkish museums	-
Week 8	A visit to Cemil Pasha Konağı (Diyarbakır Museum) and relevant activities	Dairies
Week 9	Activities in Cahit Sıtkı Tarancı Museum and in the Great Mosque (Ulu Camii)	Dairies
Week 10	A visit to Dicle University Zoology museum and relevant activities	Dairies
Week 11	A visit to Diyarbakır Atatürk museum and relevant activities	Dairies
Week 12	A visit to Diyarbakır Archeology Museum and relevant activities	Dairies
Week 13	A visit to Diyarbakır Thematic Exhibition Hall and relevant activities	Dairies
Week 14	A general evaluation on the course	The written Survey forms
Week 15	A general evaluation on the course	Focal interview forms

It is clear from Table 1 that the course was mostly theoretical in the first seven weeks but that the activities on museum education were done after week seven. The prospective teachers included in the research were divided into groups after week seven and the groups learned in which museums they would do the activities of museum education. The first activities were done by the researcher in Cemil Pasha Konağı (Diyarbakır museum) as an example. After that, each group planned their activities and did them in the relevant museums. The participants kept diaries during each museum education activity, and thus, they wrote down their feelings and thoughts about the practice. After the implementations, in week fourteen, a general evaluation of the course was made and the participants were asked to complete the written

survey forms. They were told that the survey forms would be completed on the basis of volunteering and that they were free to answer or skip any question on the form. 25 prospective teachers completed the written survey form in approximately 60 minutes. Then, the focal group interviews were held with 5 volunteering participants in week 15 so as to deepen the data. Before the interviews, the participants were informed of the purpose of the interviews and their permission was received for voluntary participation. In addition to that, the prospective teachers were also told that the interviews would be recorded with a voice recorder to prevent the loss of data. They did not refuse voice recording. They were also told that the oral statements made by them would be quoted in the study by assigning them codes and by not stating their names. Therefore, the codes such as ÖA1, ÖA2 were used in quoting the statements made by the prospective teachers included in the research. The focal group interviews each lasted 62 minutes. The codes mentioned above were also used for the statements in the survey forms and the diaries.

## 2.5. Data Analysis

Descriptive analysis technique was used in analyzing the data collected in the research. According to Yıldırım and Şimşek (2011), the qualitative data collected are arranged based on pre-distinguished themes and then they are summarised and interpreted in a way that readers can understand by making frequent quotations in descriptive analysis. The data collected through diaries, open-ended survey questions and focal group interviews in this study were transferred into data inventory forms without making any changes. The coding key was created by considering the research questions and the theoretical dimension after the transfer of data. The themes and sub-themes were distinguished according to the coding key. The analysis was repeated by another researcher, and thus, reliability between coders was achieved. Miles and Huberman's (1994) formula of  $(\text{Reliability} = \frac{\text{agreement}}{\text{agreement} + \text{disagreement}})$  was used in calculating the reliability between coders.

## 2.6. Validity and Reliability

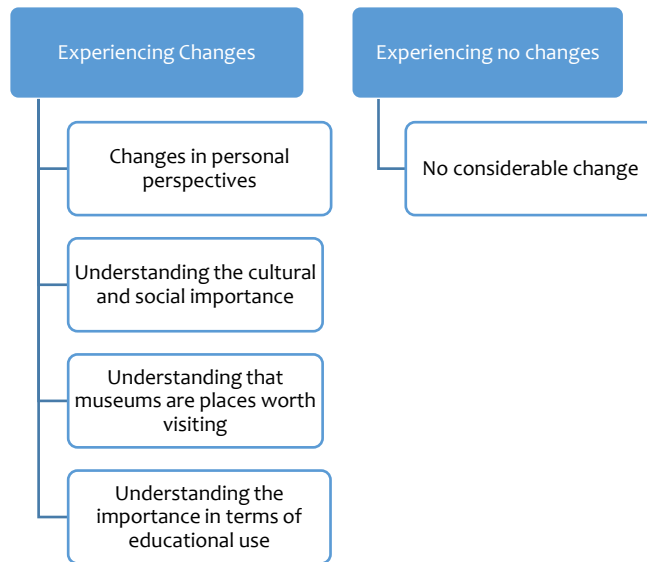
Four criteria are taken into consideration in attaining validity and reliability in qualitative studies. They are persuasiveness, transferability, consistency and confirmability (Cresswell, 2005). The researcher in this study collected the data in a very long period- in 15 weeks- by using such diverse tools of data collection as diaries, survey forms of open-ended questions and focal group interviews to meet the criterion of persuasiveness. In addition to that, the experts who were knowledgeable about the general outline of the research and who had experience with qualitative research were also consulted for their opinions. In the context of transferability, all the procedures of the implementation, the data collection tools and developing the tools, collecting the research data and analysing them were transferred in detail. Information on the data analysis process was also given and it was supported with direct quotations. For consistency study, the interviews were voice recorded, all the open-ended surveys and diaries were collected, and thus, efforts were made to prevent the loss of data. Additionally, a separate expert was also consulted for expert opinion, and the expert also did the analysis. The agreement between the two experts was calculated with the formula "Reliability= the number of agreements/the number of agreements + the number of disagreements". According to Miles and Huberman (1994: 64), the consistency between two the analyzes should be above 70%. The consistence was found to be 88% in this study. Impartial attitudes were displayed by the researcher, the data were analysed by adhering to the raw data, efforts were made to present the results to readers in an understandable way and the results were compared with the results of other studies.

### 3. FINDINGS

This section presents the participants' views on museum education by dividing them into themes and by supporting the findings with quotations from the statements made by the participants in accordance with the purpose of the study.

The prospective teachers who participated in the research were asked to state their views on the concept of museum after taking the museum education course. The views stated are shown in Figure 1.

**Figure 1.** The Prospective Teachers' Views on Museums after Taking the Museum Education Course



It is apparent from Figure 1 that the prospective teachers' views on museums after taking the museum education course are considered in the themes of "experiencing changes" and "experiencing no changes". The sub-theme of "changes in personal perspectives" is available in the theme of experiencing changes. Accordingly, it was found that there were changes in the participants' perspectives of museums after taking the course. ÖA 21, for instance, said, "I didn't think before taking the museum education course that museums would contribute much to our knowledge and I didn't take museums very seriously; but I saw after taking the course that museums would add greatly to our knowledge and accumulation." ÖA1 on the other hand stated during the survey of open-ended questions that his/her perspectives of museums had changed in the statement "museums seemed to me far before taking the museum education course. I started to be positive about museums after taking the course. ÖA14 also stressed the change in his/her personal perspective of museums by saying, "I had prejudices about museums in the past, but after the course I began to see museums as places which illuminate the past and the future." The participant coded as ÖA16, on the other hand, said in the focal group interviews, "museums were the places where objects of the past were exhibited in my opinion before taking the course. But after taking the course, it changed. For example, a stone which was carved thousands of years ago. I began to think about how we can develop such things with today's technology. I not only make a tour of the museums

during my visit but also become knowledgeable and ask such questions to myself. One thinks that we can do better now if people in primitive times could do such things.”

The theme of experiencing changes also includes the sub-theme of “understanding the cultural and social importance.” It may be stated in this context that the prospective teachers realised the cultural and social importance of museums after taking the museum education course. To exemplify, participant ÖA2 said, “I used to say it was a place where objects of the past were exhibited when I was asked to define what a museum was before taking the museum education course. But I had a completely different definition in my mind after taking the course. According to my current definition, museums are the locations which take on very important tasks in terms of individuals’ learning their culture and of developing their intellectual ability by making a comparison of the materials used in social life by transmitting them down to next generations.” ÖA8 stated his/her views which went through changes in the sentences “places where the remains of cultural heritage are exhibited are called museums. I used to say such a thing as knowledge in the past, but now I consider it to transmit the importance of them down to next generations as a mission as a person who has understood the importance of those buildings related to our culture.”

Another sub-theme in experiencing changes was labelled as “understanding that museums are places worth visiting”. In this context, it can be said that the prospective teachers’ evaluations of museums changed after visits to museums and after museum education activities. ÖA10, for instance, made the statement “while I thought visits to museums were unnecessary before I took the museum education course, I understood after taking the course that it was important to visit museums.” Another participant, ÖA4 also stated a similar view and said, “I had not felt the necessity to visit museums before the course. However I had different feelings (such as amazement, sadness, happiness) during visits to museums with the course and I noticed that I wanted to experience the beauty of those feelings again. Now, I am more positive about visits to museums.

“Understanding the importance in terms of educational use” was another sub-theme available in the theme of experiencing changes. The prospective teachers included in the study expressed their views on exhibitions and collections in museums for educational activities in this theme. Accordingly, participant ÖA24 said, “I didn’t know much about activities such as animation and puzzles in museums prior to the museum education course. I now have a broader perspective in this sense after museum education. The participant coded as ÖA17 made the statement, “museums were only the places to visit before taking the course. I started to consider them as instruments helpful in courses after taking the museum education course. I understood how to visit museums and how to use them as tools of reinforcement in learning courses.” In parallel to that, ÖA4 also said, “I didn’t use to like museums. But now I like doing drama, animating, analyzing and talking about things there” in relation to the educational use of museums. Thus, the prospective teachers were observed to have substantially different views after taking the museum education course. The changes in views manifested themselves in terms of personal perspectives in some of the participants while they manifested themselves in terms of understanding the cultural and social importance of museums in others. Thus, while some of them considered museums worth visiting after taking the course, others said that they understood the use of museums for teaching activities. Some of the participants, however, were found to have no changes in their views.

The participants were asked the question what their views on the museum education course were. Figure 2 below shows the views stated by the participants.



**Figure 2.** The Prospective Teachers' Views on the Museum Education Course

<b>The museum education course</b>	Inculcating in perspectives of the past and the future
	Introducing students to museums and to what is exhibited in museums
	Understanding the historical and cultural values
	Making teaching fun and more enjoyable
	Learning to use museum exhibitions and collections in teaching activities
	Teaching to learn by doing and by experiencing
	Teaching to learn by doing and by experiencing
	Teaching to learn by doing and by experiencing
	Teaching to learn by doing and by experiencing

As clear from Figure 2, the participant's views on the museum education course are divided into sub-themes. One of the sub-themes about the participants' views was "inculcating in perspectives of the past and the future." Participant ÖA16 described how the course influenced their perspectives of the past, the present and the future as in the statement, "we have understood how people of old times differed from the past to the present day and how the equipment they used in the past differed today. Apart from that, our empathizing skills about what difficulties they had also developed. It also inculcated the conception of where we come from, where we go and how to go. We can understand the change. We can also compare the changes in the economy, culture and social life." In a similar way, ÖA2 said in response to the question in the survey form, "the museum education course became important to me after taking it. In my opinion, museum education is an important course through which society knows about its past and builds its future by associating it with the past. Thus, the interpretation that the course was influential in prospective teachers' developing new perspectives in the context of associating the past and the present can be made.

Some of the views stated by the prospective teachers on the museum education course were included in the sub-theme of "introducing students to museums and to what is exhibited in museums." Accordingly, some of the participants described the course as a course for introducing students to museums and to what is exhibited in museums. According to participant ÖA11, for instance, museum education is "the education offered to students so that they can get to know museums." ÖA12, on the other hand, described it in response to the open-ended question in the survey as "learning in the palace where a museum is or in classes. Such learning is about museums." According to ÖA18, museum education "is an important course in visiting, getting to know and of course in getting informed of the content of museums." ÖA21 thought "museum education is a course for learning the functions of museums, for making comparisons, for learning their functions by seeing, for recognizing museums and for learning the invaluable objects in them".

It is clear from Figure 2 that some of the participants' views on the museum education course are included in the sub-theme of the course for "understanding historical and cultural values." Thus, it can be said that the prospective teachers focus on the idea that the course aims to introduce the collections and exhibitions of historical and cultural value. ÖA20, for instance,

said, “museum education is a course created for us to learn how to act in introducing and describing students historical artifacts and what activities to do while teaching. It is important and beneficial that children get to know the cultural heritage and are knowledgeable about artifacts.” ÖA9 pointed to the function of introducing students to artifacts by saying “museum education is a course which introduces the historical and cultural artifacts in museums and in which activities are done for this purpose.”

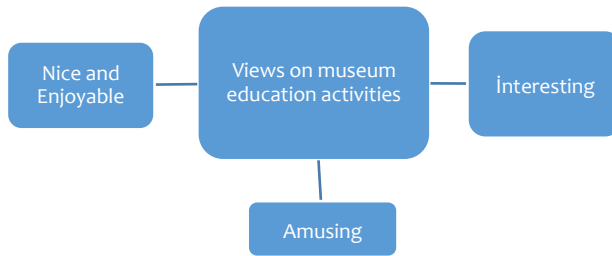
Some of the participants’ views were included in the sub-theme of the course for “making teaching fun and enjoyable.” In this respect, ÖA4 described museum education as “making education fun and more enjoyable through museums”. ÖA13, who took part in focal group interviews- described it as “making teaching possible while entertaining.”

Some of the views were in the sub-theme of “the course for using museum exhibitions and collections in teaching activities.” The participant coded as ÖA3 described the course as “transmitting the subjects in the curriculum to students in a more understandable way by means of applications and objects in museums”, and ÖA10, in a similar way, described it as “the process of modifying individuals’ interests, attitudes, feelings, thoughts and behaviours by means of collections displayed in museums.” Accordingly, it can be said that some of the participants focused on benefiting from the museum exhibitions and collections in teaching. Another sub-theme of participants’ views was “the course which makes it possible to learn by doing and experiencing.” Thus, ÖA23 explained the opportunities that museum education provided in the statement, “it is museum visits which are done for individuals of any age to learn artifacts and objects through primary sources by seeing and touching them.” Another participant, ÖA15 also described the museum education course as “learning by comparing the objects exhibited in museums with today’s objects and learning by seeing” in a similar vein. ÖA13, however, said during focal group interviews, “we will teach subjects by doing and experiencing. The subjects will no longer be abstract for students. As a result, the prospective teachers thought that the course provided teachers with opportunities for teaching by doing and experiencing.

Figure 2 also shows that some prospective teachers consider the museum education course as “the course which makes learning permanent.” In this sub-theme, participant ÖA26 said in the focal group interview, “museum education makes subjects efficient and permanent in mind.” In a similar way, ÖA4 also said, “museum education makes subjects amusing and knowledge is retained in mind for the following years.” ÖA16, said on the basis of his/her own experiences, “I visited Cahit Sitki Tarancı museum when I was the fourth grader at primary school. What the teacher said during the visit is still in my mind” and thus explained how museum education enabled retention.

Some of the views on museum education were included in the sub-theme of “the course for concretising and making the teaching content understandable.” The participants attracted attention to the important functions of museum education in concretizing the teaching content and making it understandable for students. For instance, ÖA25 said, “in my opinion, museum education is important because it makes knowledge concrete. It also forms a system of forward-looking thought. What is the most important is that it makes concrete.” In parallel to that, ÖA16 also said, “ in my opinion, museum education is important because it is important to make students familiar with a subject by associating it with real life instead of instructing about it abstractly. ÖA4 also said, “museum education makes subjects concrete.” The participants were also asked to express their views on museum education activities. The views stated by them are shown in Figure 3 below.

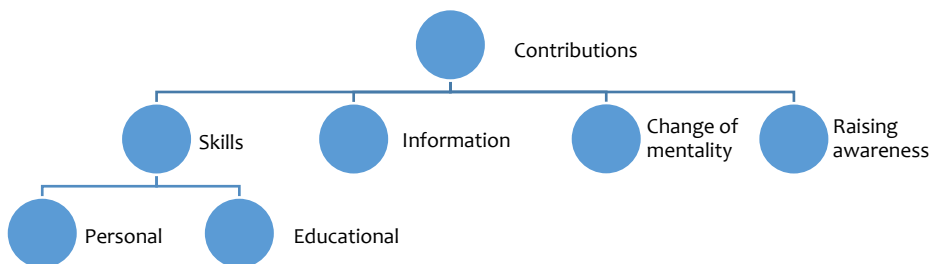
**Figure 3.** The Perspective Elementary School Teachers' Views on Museum Education Activities



According to Figure 3, the views stated by the prospective teachers in relation to the activities in museum education are divided into the sub-themes of “nice and enjoyable”, “amusing” and “interesting”. The prospective teacher coded as ÖA16 made the evaluation “for example, we asked them to compare animals and play charades in the zoology museum. Such an activity, for instance, would be better in a class instead of explaining the features of animals. It was more amusing. For example, coining and making handbags in the archaeology museum was fun.” In relation to the museum education activities done in the zoology museum, ÖA4 wrote in the diary: “the game we played at the end was suitable to the visit and it was great fun. I liked it.” ÖA21 wrote the sentences “we have been to the archaeology museum today. We investigated the daily lives of first settled societies. We made necklaces with beads which were representative of the necklaces that the people of olden times made and we sold our products. The animation was enjoyable and amusing” in the diary. Thus, the diaries also contained statements expressing that the participants found the activities of museum education nice. ÖA14 wrote “we have visited the archaeology museum and the Atatürk museum today. We saw the primitive tablets there. Then we did drama activities with my classmates. They were very nice” in their diary. Participant ÖA14 also made the statement in relation to the educational activities done for the thematic museum visit “the final part was the activity room. We made coins there and we printed pictures on handbags. We had a day enjoyable enough. In addition to that, ÖA11 said in relation to the same activities in the thematic museum, “I learnt in the applied form how people made money in that era. Another activity was printing pictures on handbags. They were really interesting activities.”

The participants were then asked a question about what contributions the course had made to them. The themes and sub-themes distinguished following the analysis of the responses to the question are shown in figure 4.

**Figure 4.** The Contributions of the Museum Education Course to the Prospective Teachers



As clear from Figure 4, the prospective teachers' views on the contributions of the course to them are divided into such sub-themes as "being informed", "acquiring skills" and "becoming aware". It is apparent from the first sub-theme that the prospective teachers learn new knowledge thanks to the museum education course. ÖA18, for instance, stated his/her views in the survey form of open-ended questions as "the museum education course has enabled me to be familiar with museums-which I hadn't known of before." In parallel to that, ÖA13 said, "the museum education course enabled me to learn new things and new places" to mean that the course contributed to his/her knowledge. ÖA1, on the other hand, made the interpretation "this is the first time I go to Cemil Pasha Konağı. I have just learnt that it is the biggest konak (mansion) in Diyarbakır" in his/her diary. ÖA2 made the statement "we have visited the Cahit Sıtkı Tarancı Museum today, the visit has informed me a lot and made me happy" in his/her diary. Participant ÖA4 wrote about remarkable knowledge that he/she gained in the zoology museum as "bees were the living creatures that attracted my attention the most. It was because bumblebees were the first things which discovered paper. But it was sad that many people did not know about it." Another participant, ÖA17, had the sentences "there were several types of fish, birds and butterflies in this museum. We were informed of them" in his/her diary. Therefore, it can be stated that museum visits have enabled prospective teachers to acquire new knowledge.

An examination of Figure 4 demonstrates that the museum education course also contributes to the participants in terms of "acquiring skills". The contributions were both personal and educational. To exemplify, ÖA2 made the statement, "it caused me to have more empathizing abilities." ÖA16 said, "I think that the concept which will change the world is creativity. I can say that my creativity in planning museum education activities and in securing participation in activities has developed thanks to the course." In the same way another participant, ÖA3, also made the statement, "our creativity came into prominence and our empathizing skills developed." On the other hand, the participant coded as ÖA16 held the view stated as "it develops empathizing skills greatly. Today we know of the circumstances; we see the things people used in those periods, empathising skills are developing. We see lifestyles, difficulties and so on. We can put ourselves in other people's shoes." The prospective teachers also held the view that the course developed their teaching skills. ÖA17, for instance, said in this respect, "it made use gain the skills to plan what to do before, during and after museum visits and to arrange them." ÖA10 wrote his/her view on the written interview form as in the statement, "museum education has taught me the rules to obey, the activities I can do and the need for communicating with children and with their parents on doing museum visit activities when I become a teacher."

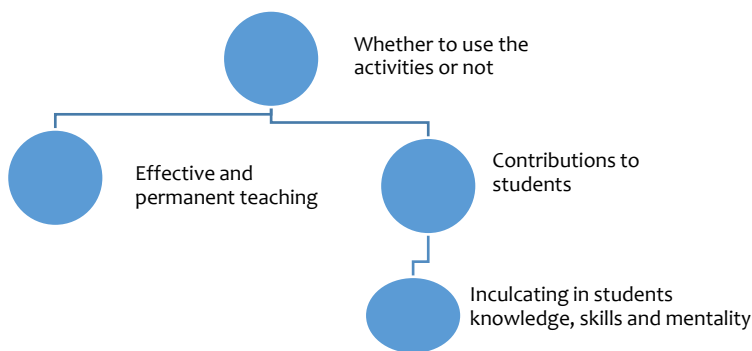
Figure 4 also shows that the prospective teachers have experienced a change of mentality through the museum education course. Thus, ÖA6 made the statement, "I no longer consider the objects in a museum worthless when I go to a museum. It made me more aware of the environment and history" to stress the change of mentality he/she had gone through. ÖA8 stated the change of mentality as in the sentence "I have made sense of how the cultural works that humans leave cause changes in daily life over time." ÖA1, another participant, wrote in his/her diary "I understood how important cultural heritage was when I looked at the objects in Ataturk Museum. The museum actually displays great resistance so that the culture does not vanish" and thus indicated that he/she had understood the importance of the elements of cultural heritage. In another diary kept during a museum visit, ÖA11 stated his/her views as "I have set up ties between life in the past and life at present by means of museum education and I developed thoughts directed to the future" and thus meant that museum education was influential in acquiring the perspective of the past and the present. ÖA21 also pointed to a change of mentality in relation to history and museums thanks to the

museum education course in the statement “the museum education course has made me understand the importance of museums. It caused me to have curiosity about the past and history. It developed my sense of history.”

It is clear from Figure 4 that the museum education course also “raises participants’ awareness”. As an example, ÖA22 said, “the museum education course reminded me how insensitive I was towards the past and the environment of living. I noticed that I needed to improve myself in this respect.” In the same way, ÖA5 stated his/her awareness of museums in the statement, “museums were in the city center and I used to walk past them and I didn’t use to visit them. Now I know that museums have great stories in them, and I noticed it thanks to the course.” Another participant, ÖA13 mentioned his/her change of awareness of museums by saying, “I am from Diyarbakir but I didn’t know many of the museums in the city. I hadn’t seen them before. I had the opportunity to learn them. I used to take my guests from other cities to cafés; I didn’t use to think of museums while having a tour of the city. Now I also take my guests to museums.” ÖA7 said in this respect, “we are from Diyarbakir but the course made my friends who were not from Diyarbakir more familiar with Diyarbakir and raised their awareness.” In his diary, ÖA12 wrote the sentences, “... I was surprised at seeing that living animals’ fetus was preserved by burring it in liquid resin. Besides, analyzing twelve endemic species and putting them in the museum also increased the value of our geographical location in my eyes.” Based on these sentences it can be said that visits to museums have raised the participant’s awareness of the geographical location.

The prospective teachers were asked to state their views on using museum education activities in their professional life of teaching. The views stated are shown in Figure 5.

**Figure 5.** The Prospective teachers’ Views on whether or not to Use the Museum Education Activities in their Professional Life of Teaching



According to Figure 5, the prospective teachers think of using the museum education activities in their professional life of teaching in the future because they led to effective teaching; they could contribute to students in several ways; they could inculcate in students’ knowledge, skills and mentality. The views that effective teaching could be possible through museum education activities suggested that those activities concretised subjects, students learnt by doing and experiencing, the activities were educational and enjoyable and they made subjects more interesting. For example, participant ÖA13 claimed that museum education activities would concretise subjects and lead students to learning by doing and experiencing in the statement, “we will teach children by doing and experiencing. What we teach will not remain in the classroom. They will be concrete and children will experience

them.” In parallel to that, ÖA26 said, “I mean they make subjects concrete and make learning permanent. They arouse students curiosity” and thus stated that the activities led to effective teaching by arousing students’ curiosity, making subjects more interesting and resulting in permanence in learning. In the written interview form ÖA15 made the statement, “I will certainly take my students to museums and I will teach there. Because it is very effective learning. Learning will be easier, more enjoyable and amusing since it is learning by doing touching and seeing” to explain his/her reasons for using the activities in teaching in the future. ÖA20 wrote in the diary after visiting a museum “if I become a teacher in the future and if I work in a school in Diyarbakır, I may take my students to a museum to reinforce the subjects of teaching. And I can even teach there. It would be more influential in terms of learning. Students would learn by doing and by seeing and they would learn better and more effectively” and thus argued that museum education activities could be used for reinforcement and they would enable students to learn by doing and experiencing.

The prospective teachers who took part in the research also stated that they would like to use the museum education activities in the future when they become teachers because the activities would inculcate in students knowledge, skills and mentality. The statement made by participant ÖA13 in this respect was as in the following: “can we do the activities in a village? It seems to me that it is difficult. Because there is a lot to do before museum education. Can we do them in villages? I don’t know. They can be done in the city center. Children learn. They have fun. They compare the past with the present day. They gain empathising skills. It is something to remember and an activity for them. They can improve their communication skills by reporting them to other people in their circle. It is important for socialising” and argued that the museum education course could improve students’ empathising and communication skills. Participant ÖA5 gave the response “yes because the activities improve students observation skills and develop their personal ideas” while ÖA2 gave the response “they enable children to compare the past with the present and thus they develop their empathising skills. They also develop their intellectual abilities” to the question in the written interview form. It was apparent from the participants’ views that they thought the museum education course developed students’ communication, empathizing and observation skills in general.

In addition to that, the participants also wrote in their diaries that students would acquire a considerable amount of knowledge through museum education activities. For example, ÖA16 stated that museum education activities could inculcate in students knowledge and mentality by making the evaluation: “children’s awareness of protecting the natural environment can be raised by taking them to the zoology museum. Thus, they can be made to understand biological diversity, they can be shown the living creatures that they may perhaps not see in real life and they can be taught them.” In parallel to that, ÖA22 explained why he/she wanted to use the museum education activities in his/her life of teaching in his/her diary by writing, “I will certainly take children to the zoology museum when I become a teacher. I think that the visit will be very influential in such issues as the sense of protecting the environment, species of animals and protecting nature.” Thus, it is apparent that the participant thinks that the activities are influential in inculcating the necessary knowledge and mentality in students and wants to use such activities in his/her professional life of teaching for this reason.

Some of the participants also believed that the museum education activities would be effective in developing mentality in students and said that, therefore they would use the activities in their life of teaching. In this respect ÖA21, for instance, said, “Yes, I think so. I would like students to see museums and what is inside museums. I would like them to get to know them and develop the sense of history.” ÖA8 said, “yes, I think so. They (the activities)

contribute to students in personal development such as gaining different perspectives, making comments and inferences in addition to causing cultural development in relation to the society.” Participant ÖA16 held the view “there are lots of things to teach students in this Konak (mansion). For instance, they can mix the old and the new clothing materials. They can look at the cultural change and they can try to make sense of it.” Thus, the participants in general thought that the activities of museum education would inculcate a sense of history and mentality in students and they would also help students make sense of changes and transformations.

#### 4. CONCLUSION AND RECOMMENDATIONS

The curricula in educational faculties and educational sciences were undated and certain regulations were made to them by the council of higher education in 2018. Accordingly, the museum education course was included in the elective courses of occupational knowledge. This study made efforts to determine prospective elementary school teachers’ views on an elective museum education course and the activities done in the course. The research lasted 15 weeks. The results obtained in the research and the discussion on the results are presented below.

Changes occurred in the participants’ views on museums after taking the museum education course. Thus, it was found that the prospective teachers included in the research found museums worth visiting and that their perspectives of those places changed in positive ways after taking the course. Dilmaç (2016) found that the activities held in museums in order to provide professional development positively affect the perceptions and attitudes of the visual arts teacher candidates towards museums. Museums have the most valuable examples that have witnessed the developmental stages of human history and played a role in the beginning and completion of these stages (Tan, 2009). In addition, they are institutions that reflect the social structure, traditions, cultural level, thought system and values of the countries or regions (Erbay, 2009). Thanks to the practices carried out within the scope of the Museum Education course, these features of museums have made sense to the teacher candidates and this situation has enabled their views on museums to change positively.

The findings obtained in this paper suggested that the prospective teachers understood the cultural importance of museums by means of the museum education course. Besides, they also considered it as a course for introducing historical and cultural values. In the research conducted by Grenier (2010), teachers were given seminars on the use of museum collections in the learning process, and thus, their perspectives on history and culture changed. Sheppard (2001) argues that museums help individuals understand the importance of cultural assets and historical artifacts. Crane (2000) emphasises that museums have significant functions in protecting the national identity and culture and transmitting it down to the next generations. It can thus be stated that visits to museums within the scope of the museum education course contribute to prospective teachers’ making sense of the cultural functions of museums.

The participants believed that the course made them gain the perspective of the past and a future. Accordingly, they looked at the past and made predictions. Besides, they also stated that the course introduced them to museums, objects exhibited in museums and to historical and cultural values and it helped them gain perspectives of the past and the future. Mentiş Taş (2011) reported that museum education enabled prospective elementary school teachers to combine the past the present and the future meaningfully, have historical and cultural accumulation and understand the value of artifacts. This situation in fact shows us that

museum education can fulfill the task of cultural, historical and knowledge transmission between the past and the future in the best way possible and concretely.

The educational activities done in museums and the visits to museums raise individuals' awareness and develop their mentality. The research found according to the participants' statements that they became aware of the history and culture of the city they lived in and they gained sense of culture. Several other studies also found that museum education activities contributed to the development of the sense of history (Abacı, 2003; Kuruoğlu Maccaio 2002; Declaration of Museums and Education, 1998) and developed environmental ethics and the sense of protecting nature and the sense of culture (Penna, 2007; Denizli et al., 2006; İlhan and Okvuran, 2000, Kindo, 2004). The participants also stated that they would use such activities in the future when they become teachers because they thought the activities would have the same effects on their students. Thus, it can be said that the prospective teachers want to use the activities with their students in the future and to make contributions to them by considering the contributions of the activities to themselves.

In this study, the activities, practices and trips carried out within the scope of the museum education course enabled teacher candidates to make sense of museums by using and experiencing them educationally. In the studies carried out by Hamilton and Margot (2020) and Clark, Ensminger, Incandela and Moisan (2016) in cooperation with the museum-education faculty, it was seen that the applied activities in museums enabled teacher candidates to make sense of the use of museums in the teaching process. In this respect, it can be said that it would be more appropriate to conduct the museum education course with practical activities in museums instead of conducting the museum education course theoretically, in order to enable teacher candidates to make sense of the instructional use of museums.

In the Museum Education Course, teacher candidates were informed about how to carry out educational activities by integrating the aims of the education program with the exhibitions in museums. Pre-service teachers made educational activity plans in museums by integrating theory and practice and tried to apply them. Teacher candidates participating in the study state that these activities improve their instructional skills. It is seen in some research that the instructional skills of teachers (Lau & Sikorski, 2018; Pickering, Ague, Rath, Heiser, & Sirch, 2012) and teacher candidates were developed using museums and exhibitions (Chin, 2004; Çıldır, 2007; Jung & Tonso, 2006; Marcus, 2015; Stetson & Stroud, 2014). It is of great importance that teachers' pre-service instructional skills are also sufficient. As a matter of fact, the experiences of the prospective students in the Museum education course contributed to their instructional skills. In this context, it is thought that the museum education course can make important contributions to the teacher candidates' teaching lives. The teacher candidates participating in the study expressed their views on the instructional functions and benefits of the museum education course such as "making what is learned fun and enjoyable", "ensuring the permanence of what has been learned", "enabling learning by doing" and "making the teaching contents concrete and understandable". Similarly, teacher candidates participating in the study stated that museum education activities made the subjects learned fun, enjoyable and interesting. In various studies, the opinions of teacher candidates and teachers regarding the use of museum education activities in the teaching process were determined. In the study conducted by Çalıřkan, Önal, and Yazıcı (2016), it was seen that Social Studies teacher candidates regard the use of museums as a learning environment for reasons such as embodying what is learned and making it permanent, and providing active and enjoyable learning. In similar way, Güleř and Alkış (2003) found that Social Studies teachers stated that education in the museum was effective in providing



permanent learning. On the other hand, Ekmekçi (2015) determined in his research that history teachers have a positive view of the use of museums in teaching activities because they provide permanent learning, concretize subjects and learn by doing and experiencing. In this context, it is possible to say that the research results contain similarities.

In the study, teacher candidates emphasized that museum education activities make learning fun, interesting and enjoyable. Uğur (2004) states that museum education activities make learning enjoyable and entertaining. In addition, according to Okvuran (2012) and Özmen (2018), museums turn into environments that can teach while entertaining, thanks to museum education. It can be said that the activities carried out within the scope of museum education make what to learn interesting. In this context, Penna (2007) and Dilmaç (2016) state that museum visits and museum education activities can be used to arouse students' interest and curiosity. Üztemur et al. (2018) also state that students' interest can be focused on the subject through the use of museums and historical places in instructional activities. Different research findings reveal that museum education activities make the subjects interesting for students and turn learning into an enjoyable activity. Findings in this study also support this. Performing the learning process at the elementary school level in a pleasant, fun and interesting way can be considered as an important situation considering the developmental characteristics of the students. In this context, it is possible to say that museum education activities can offer prospective teachers important opportunities and supports in their professional lives, according to the results of the research.

The teacher candidates participating in the study think that they have gained a lot of new information thanks to the practices carried out in the museum education course and museum visits. In Erdem's (2018) study, it was stated that the teacher candidates gained a lot of information they did not know before, thanks to the museum visits they carried out in the museum education lesson. On the other hand, Lau and Sikorski (2018) found that museum education activities carried out for the professional development of teachers provided teachers with content knowledge on the subject discussed. In addition, teacher candidates stated in the study that museum education contributed to the development of their personal skills. In this context, teacher candidates think that the museum education course improves their creativity and empathy skills. It has been determined in different studies that museum education contributes to creativity skills (Abacı, 2003; Adigüzel & Öztürk, 1999; Atagök, 1999; Buyurgan, Mercin & Özsoy, 2005; Dilmaç, 2016; Gartenhaus, 2000; Hamilton & Margot, 2020). In addition, the contributions of museum education to empathy skill have also been identified in various studies (Kabapınar, 2014; Onur, 2010; Seidel & Hudson, 1999; Safran & Ata, 1998; Yılmaz & Şeker, 2011). It was also observed that teachers' cooperation (Grenier, 2010), teacher candidates' communication, stress management (Çırak Karadağ, 2019) skills improved in museum education activities. In this respect, it is possible to say that teacher education activities in museums can contribute to the development of personal skills of teacher candidates.

Stetson and Stroud (2014) and Dewitt and Osborne (2007) state that pre-service teachers gain instructional experience in museum education during their undergraduate education increases the possibility of doing such activities to their students in their teaching lives. The teacher candidates participating in the study formed positive ideas about the lesson by understanding the function and benefits of museum education activities in creating an effective learning process. Therefore, they stated that they would like to use such activities in their teaching lives.

Today, learning is not limited to school physically. In the explanations and suggestions regarding the implementation of the curriculum, teachers are asked to design meaningful learning experiences by creating instructional activities outside of school. This situation requires teachers to have knowledge, skills and understanding in creating a teaching process outside of school. In this context, pre-service teacher candidates' ability to plan activities by using museums and exhibitions, which are one of the out-of-school learning environments, can be considered as an important situation at the point of implementation of the curriculum. In this sense, the Museum Education course can be considered as a functional course. Because, in the Museum Education course, important knowledge, skills and understanding can be provided to teacher candidates in order to create instructional activities in museums. In this study, teacher candidates think that they have gained instructional skills thanks to the practices carried out within the scope of the Museum Education course. At the same time, teacher candidates stated that these practices improved their personal skills and created meaningful changes in them. For example, it was stated by the teacher candidates that museums are not only historical places, but can also be used as educational spaces, create positive individual changes, and should be perceived as places where social and cultural perspectives will differ. In this context, it is seen that the museum education course contributes to teacher candidates in terms of understanding, awareness and skills. Each candidate who started his career as a teacher, transferring what he acquired through museum education to his professional life and using it in creating an effective learning and teaching process will contribute positively to the development of students' knowledge, attitudes and skills. In addition, the fact that the classroom teacher candidates have very positive opinions about museums and museum education activities provides clues that they are likely to use such activities in their professional lives. Teacher candidates are expected and desired to benefit from museum education activities in their professional lives.

#### **4.1. Recommendations and Limitations**

The participants in this research thought that museums could be used in creating a process of effective learning. Therefore, experts who write course books and develop curricula can create learning content in such courses as Life Studies, social studies, Physical Sciences and Visual Arts- courses which are considered to be more appropriate in using museums for learning at the level of elementary school- for using museums. Teachers can develop museum education activities in such courses. Researchers can plan learning activities in museums by taking into account the cultural and historical acquisitions in the learning areas of Life Studies and Social Studies courses and reveal their effectiveness in the context of qualitative or quantitative research. Action research on raising consciousness of history and culture can be done by using museums and creating learning activities in teaching local history in elementary school Social Studies course.

This study has a number of limitations besides its strengths. For instance, it evaluated the views on the museum education course stated only by prospective elementary school teachers. The views of prospective teachers of other branches were not considered. The prospective teachers' skills of planning the museum education activities were not measured, either. Researchers can design separate research studies according to the lacks mentioned.

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