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Museums as an educational medium: an implementation model

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Abstract

The aim of the study was to construct knowledge about the prehistoric life style of Istanbul with regard to the clothing and sheltering. The research was carried out in three stages as pre-visit, visit, and post-visit to the Archeologically Museum where various educational techniques were used. 63 5th grade elementary school children participated in the study to test the effectiveness of the program. Statistical analysis revealed that the experimental group was more successful than the control group on conceptualizing the prehistoric life style and constructing knowledge about clothing and sheltering .

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1. Introduction

Due to its strategic location astride two continents, Turkey is a country, which dates back to centuries. It is known that many civilizations completed their cultural evolution process in this geographic region. Therefore Turkish museums possess a rich collection of archaeological remains from these civilizations. However, it is necessary to pass on the knowledge of these historical values kept in the museums to the future generation (Abacı, 2005). Bridging the society with the objects in the museums can be realized by way of creating educational programs especially including museums as a medium in children's education, and dissemination of these educational programs to be used in other museums. This approach is in line with recent educational policies especially the cooperation of educational institutions and museums all around the world (Abacı, 2008).^a

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Museums among other institutions have an exclusive place in education. A museum is a special institution where one can travel in history or to different cultures. There are many museums differing in terms of their collections and size. On the other hand, when the common features are considered, a museum is a constant non-profit and public institution that serves for the development of the community by exposing people to another environment in history collecting, saving and investigating the information and then sharing this information for educating the people or just for their pleasure (Atagök, T., Özkasım, H., Akmeahmet, K., 2006).

Recently educational institutions have discovered museums as an ideal educational setting and museums notice the support that they can provide for active learning. This leads to some changes in the function of museums. The main function of museums is to compile local, regional, or national culture, to save these for future generations, and to inform society (Merrivan, 2000).

The aim of our research was to introduce the history and culture and civilizations in the history of Istanbul regarding their nourishment, sheltering, clothing and comparing them with today's way of living and existence. The children were encouraged to talk about the importance of clothing and sheltering and its functions. While developing awareness of change in that respect through ages, legendary themes pertaining to Istanbul were used to help them visualise the everyday life in those times.

2. Methodology and Sampling

This quasi-experimental study was carried out with the participation of 63 fifth-grade students studying in Çekmeköy Elementary School in Istanbul. Students in both control group (N= 31) and experimental group (N= 32) joined the planned pre-visit and post-visit activities. Experimental group attended museum visit whereas control group did not. Before the visit pre-test and after the visit post-test were applied to both groups.

3. Data collection Instruments

The designed questionnaire was given as a pre-test by the classroom teacher before the activities. After the activities were completed, the questionnaire was presented as a post-test. The questionnaire consisted of 12 open-ended questions serving the main purpose of the study being the awareness of prehistoric life style of Istanbul regarding the clothing and sheltering. The procedures and techniques employed in the study were classified into three sections. First was verbal field including story reading and completion, writing composition, discussion, and problem solving. Second one was artistic activities including design and painting and collage techniques. Third one was drama performances including educational drama, creative drama and improvisation. Worksheets on historical period, archaeological information, photographs, Turkey's map, Istanbul's map, various paints, pastels, collage materials, glue, scissors, and crafts were utilized as verbal and art materials in the activities. The educational period lasted for 3 week.

4. Educational Program

The practices in the "School-Museum Days" program were performed in three phases. In the first one, pre-excursion activities were carried out with both control and experimental group at school. In the second phase, Museum excursion was realized with a visit to Istanbul Archaeology Museums to the gallery of Istanbul through the ages with the experimental group. In the last phase, post-excursion activities were performed with the experimental group at the museum and then they were performed with both groups at school.

Pre-museum excursion phase includes activities to be held in classes and schools. At this phase, educational materials and techniques are prepared and applied. The preliminary activities of excursion are used in class by the teacher three days before the excursion. The first activity is to talk about the function of the concept of museum with discussion in the classroom. In this activity, the answers to the question "what is a museum?" are sought. In the following courses, students are made ready for the excursion by the activities such as drama, art, and verbal field related concepts with the subject matter (Önder, A., Abacı, O., Kamaraj, I., 2008; Abacı, 2003).

In the present study, the following activities were held by the classroom teacher at the pre-museum excursion phase. "Object activity" was designed in social studies course in order to aid students for concentration and thoughts on objects by guiding them to produce questions about objects. "Story reading" and "Story completion" activities were designed in Turkish course in order to inform about the museums' prehistoric daily life section. An educational drama activity called "Walking on different floors and environments" was planned to teach the rules that should be

followed in museums in physical training course and another activity called “Hunting Art-Mural painting” was conducted in Arts course to teach the colours obtained from nature and to train the hunting life of human in prehistoric period.

During the museum excursion, the following activities were conducted by educational volunteers. 32 students in the experimental group were taken to the Istanbul Archaeology museum. Those students were divided into three groups as group A, group B and group C and each group alternately attended the excursion workshops, Art workshop and Drama workshop. In excursion workshop, the concept of life style in prehistoric period regarding the sheltering and clothing topics were studied by employing the question-answer technique in Child Museum section. Object focused activities were held in front of the four display windows of the Istanbul throughout Ages exhibition hall. By discussing the students’ answers, a means and end relationship was established and compared with today’s life style. Next, the students were asked to answer the question in the distributed worksheets. Worksheets are one of the interpretation methods of museum collection. Question technique with its variety, practices, provides students to develop wholesome feeling to communicate with objects actively while having fun, supporting the school curriculum. In the art workshop, students performed group works on the topic of lifestyle in prehistoric period by applying the mask paint and collage techniques. Art education assists students’ creative abilities and enhances their learning process. By involving in art activities students decide by themselves directly to participate in the learning process thus they have the opportunity to activate their learning. In drama workshop, students acted out two drama activities. The first one: “telling names by actions” aimed to memorize words easily related with the prehistoric period and later was called “daily life in prehistoric period” referring to a day in the life of a prehistoric family. Drama is an effective teaching method for school-aged children. Pedagogic drama is an educational technique in which social, universal, and abstract concepts are made meaningful by animating subjects such as history and literature via feeling the particularly organized experiences (Önder , 2006).

After the museum excursion, the teachers performed following activities. Post visit activity phase was a stage to reinforce the recently learned information, which can be executed in 3-5 days after the visit. Teacher(s) evaluated the visit discussing with the students in class. This activity is also important from another perspective. Each student realizes the objects belonging to past reflect the age and civilization when they were made. While the student is analyzing history by the help of the objects, and trying to understand it with comparing the objects of today and past, actually acquire knowledge during the process via objects. Opportunities are provided for students to utilize their creative thinking by asking them to design futuristic objects which are the continuation of past and present (Abacı, 2008).

Both the control group and experimental group designed posters in painting course and composed a classroom newspaper in Turkish course in order to compare the daily life of prehistoric period and today.

5. Analysis of the Data

The data gathered as pre-test and post-test before and after the educational program employed in the study was analyzed with the statistical program SPSS 11.

Table 1. The results of the independent sample t-test between the pre-test scores of the experimental and control groups

	n	X	ss	t	p
Experimental Group	32	14.1250	2.2683	.241	.811*
Control Group	31	14.2581	2.1129		

* $P > .01$

As can be seen in table 1, independent sample t-test conducted between the pre-test scores of the experimental and control groups including their thoughts of prehistoric period and their level of knowledge on clothing and sheltering subjects resulted that there was no significant difference. In another words, there is no difference between the experimental and control group in terms of their thoughts about Archaeology Museums and the level of knowledge on clothing and sheltering.

Table 2. The results of the paired sample t-test between the pre-test and post test scores of experimental group

	n	X	ss	t	p
Pre-test	32	14.1250	1.8393	-	000*
Post-test	32	15.9375		5.574	

* $P < .01$

Table 2 presents that a significant relationship was found at 0.01 level depending on the paired sample t-test results between the pre-test and post test scores of experimental group including their thoughts of prehistoric period and their level of knowledge on clothing and sheltering subjects. This difference was in favour of post-test. Museum education program increased the post-test score significantly when compared to pre-test scores.

Table 3. The results of the paired sample t-test between the pre-test and post test scores of control group

	n	x	ss	t	P
Pre-test	31	14.2581	5.2242	.722	.476*
Post-test	31	13.5806			

* $P > .05$

Table 3 shows that there is no significant relationship depending on the paired sample t-test results between the pre-test and post test scores of control group including their thoughts of prehistoric period and their level of knowledge on clothing and sheltering subjects.

Table 4. The results of the independent sample t-test between the post-test scores of the experimental and control groups

	n	X	ss	t	P
Experimental Group	32	15.9375	2.5645		
Control Group	31	13.5806	5.1496	2.311	.024*

* $P < .05$

As can be observed in table 4 there is a significant relationship found depending on the independent sample t-test results between post test scores of experimental and control group including their thoughts of prehistoric period and their level of knowledge on clothing and sheltering subjects. The difference was in favour of the experimental group.

6. Results

The results indicate that museum education program designed with different educational methods provides cognitive learning and more awareness to students with various perspectives. Depending on the findings, the designed and implemented program is efficient concerning the experimental group's performance on cognitive learning and awareness. It can be assumed that it is possible to acquire knowledge by particularly implementing educational programs in the museums.

The results of the present study can be interpreted as the total outcome of the educational techniques involved in this program. Therefore, it is impossible to test effects of the each technique on the outcome.

6.1. Suggestions

Further studies with larger group size and variables could give more significant and detailed results than the present study. For this reason, different museum environments could be arranged for students or various themes in different parts of the same museum could be studied.

This study is particularly imperative to reveal that the use of museums in education has effective results. Consequently, it is necessary to conduct similar further studies considering the positive results of the present study. Moreover, there is a need to accelerate the necessary steps in generalizing the effects proven program in our

education system. For example, informative seminars and meetings about the program and its results should be available to teachers or innovative directors in order to inform them.

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