Role of Museum as a Resource in Learning History at the Elementary Level

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Abstract
The purpose of this research was to highlight the importance of museums as a resource in learning history at the elementary level. Museums are institutions used as evidence of historical activities. It was recognized in the 15th century to describe the concept of evidence in a form of a permanent non-profit institute. They reveal the diversity of the culture and society. Museums are the authentic source to interpret historical indications. They are used to educate people about their diversity in cultural traits, science, and history. For the same purpose of educating people or students the museums are utilized in the educational institutions. Because these aim to preserve historical information to explain the real picture of history in different forms like images, statues and historical record. The study targets the role of museums as a resource in learning history at the elementary level. The objective of the study was to explore the academic performance of elementary school students before and after using museums as a resource. Experimental research design was applied for the conduction of the research. The researcher adopted a quantitative approach to collect the parametric data. The public elementary school students were the population of research. Convenience sampling was used to choose the sample and one public school was chosen to conduct the research. The results of the pretest-posttest indicated that museums can be utilized as a resource in learning history at the elementary level. The conducted study recommends that museums can be incorporated as compulsory part in educating history and provide the students original learning scenario regarding historical perspective.

Keywords: Museum, Learning, History, Academic Performance, Resource, culture transmission, Historical, Evidence, Values, Informal education.

1. Introduction
Museums pageant multiple collections of artifacts can be operated as a very effective teaching aid. They expose the cultural perspectives and values of society. The international council of museums (ICOM) explained the educational role of museums. ICOM emphasizes the informal role of museums. They are the places where scientific, historical, and cultural artifacts are preserved. They explained the actual depiction of historical situations. They are the institutes that educate the...
students informally about cultural and historical perspectives. Vassiliadis and Belenioti (2017) explained that museums are the representatives of the past of any country and its culture. They divulge the variances between nations and their cultures. Museums also explain the variations at different times. George (1991) enlightened how visitors learn through visiting museums. Museums offer a natural environment to visitors that aid them to recognize clearly and interestingly. Museums transform their role from static to collaborating approach. They heighten their role on the educational side to provide informal education to the students. A museum probably the only efficacious mean of educating the adult, who cannot be estimated to go to school like the youth (Hooper & Greenhill 2007). Students want an interesting and interactive environment that enriches their interests and improves their performance. The museum links the past and present, which helps the students to live in factual situations and interpret the facts.

Goode et al., (2000) elaborated that it was the 3rd century BC when the very first museum was founded in Egypt. They are the institutions that help and guide the learners to investigate through inquiry. According to ICOM, eighty percent of museums are used as a resource for the learning of children. The world has shifted to a new vision of interactive learning. Asogwa et al., (2013) explain the classification of museums as history museums, general museums, and science and natural museums. It is like a living organism that explains through preserving real situations and artifacts. Sheng et al., (2012) classified museums as educational, aesthetic, and social places to explain the multiple aspects of any society. They are learning places where visitors come and explain the facts. Berier et al., (2000) define museums are nonprofit able permanent organizations/institutes that are available for the public to perceive and interpret historical actualities. They provide and explain the narrative structure of the displayed objects. This structure helps the students to understand clearly. Museums are the presenters of the cultural heritage of a country. Keeping the relation between present happenings with the past (Talboys & Gramek, 2016). Goode et al., (2000) state how learners perceive through the real-life images of historical happenings. The students perceive theoretical background inside the class that develops a curiosity in their minds. The real-life images and sculptures of past happenings help them to conquer the facts. The museums provide fertile ground to interpret the desired happenings of the past. Constructive theorists emphasize learning through active participation. When the learner got a participatory environment it helps them to cultivate knowledge.

Constructivists focus on the student-centered environment in which they can construct new things and ideas. The constructive theory explains how learner experience and understand things. The personal experience of the learner enhances the social and cognitive development of the learner. The current study was conducted on elementary school students, who are at the formal operational stage. At this age, students construct new ideas by having logical reasoning. To develop long-lasting and in-depth learning for the students, they must be facilitators in real situations of the happening. The museums are the authentic resource of past happenings that can facilitate the learners. Bhutto and Chhapra (2013) explain that social interaction with the environment helps students to learn effectively. The social constructivist Vygotsky focuses on the social interaction of the learners. The theorist relates the learning of the students by providing them with social
interaction. Cambell (2006) describes that observations and experiments make the learner explorer. It helps the learner to play in the field of experience. Daniels (2008) elaborated on the relationship between learning and social interaction. The author explains that interaction with the environment enhances the learning of students. The museums are playing the role of laboratories in which students can explore, identify and interpret the available past happenings in a form of real situations.

1.1 Research Objectives and Hypotheses of the Study
The objectives of the study were i.e. (a). To explore the educational role of museums in the teaching/learning of history; and (b). To compare the academic scores of the participants before and after using museums as a resource in teaching/learning history. The hypothesis were i.e. (a).

\[ H_01: \text{There is no significance difference in the academic scores of the participants before and after using museum as a learning resource}\]

2. Literature Review
Bain et al., (2000) highlighted the transformation in the educational systems around the world. The author explains the open-air classrooms where students can explore interestingly. It enhances the interest level and builds up curiosity in the minds of learners to explore more. The author compares the traditional and interactive practices in the educational system that constructs knowledge and increases learning. Ryan (2006) defines the paradigms from teaching to learning with the involvement of interactive participation using different resources. There are multiple resources that help the learners to dig out the facts and explore more. Perovic et al., (2013) emphasize the new role of museums from static to interactive institutes. The need is to rethink the practice of museums as learning resources. They are the places out of the class to learn interactively. Teaching practices are applying to the new methodologies to involve the students in learning. Teachers are now becoming learning facilitators instead of knowledge transmitters. The current study justified the role of a teacher as a facilitator by conducting different activities in museums. The students of grade VIII were taken to the Pakistan Monument Museum Islamabad where they explore the museums by themselves. The researcher prepared different activities for the students to relate the theory they have studied in class. Strayer (2007) highlighted the effectiveness of conducting activities in the class. These practical activities painted the multiple aspects of every single learner. It helps them to enhance their abilities through involvement and social interaction. Driscoll (1994) describes the different modes of communication and interaction that helps learners to learn. The practical involvement expands the curiosity, vision, and imagination of the students alive. They narrate their invented ideas, to different roles, symbols, and objects. Bain and Ross (2000) explain that learning comprises of interaction, involvement, language, and communication. The learner needs to be interactive to conquer the realities and linked them through logical reasoning. Ryan (2006) the teaching of history is quite different because most students have the least interest in studying history. Therefore, educationists prefer to use the museum as a resource because it helps to provide an environment where students explore and interpret according to their interests.
History students need a learning environment where they can develop an interest in learning history. The researcher conducted an experimental study to check the usability of museums as a resource for learning history at the elementary level. The experimental study resulted that students performed more interestingly and interactively by visiting museums. Utama and Krtistin (2020) encourage learning from outside of the class. It helps to spark the curiosity and interest of the students. It builds the motivation, confidence, communication, and critical thinking skills of students. Beesley (2004) emphasizes learning from the outside of the class. It can happen anywhere. Pashler et al., (2008) describe that learning history is quite different from other subjects because the learner could not recreate past experiments and events. The learner needs some real artifacts of the previous happenings. So that they can relate to and interpret the shreds of evidence. The evidence is divided into different resources i.e. journals, archaeological artifacts, pictures, paintings, and diaries. These resources are categorized into two types: Primary and secondary. The sources that are directly witnessed of past happenings. The secondary sources indirectly narrate the past happenings. All the resources are presented in the museums. Senthamarai (2018) emphasizes to use of interactive teaching techniques and resources to make learning more impressive.

Chong and Smith (2017) emphasis on the interactive use of museums that facilitate the visitors for learning. The first and formost, need to make the museums more interactive and effective educational places. There are multiple strategies that can be practice to cater the development of their museums. Educational programs in museums offer dynamic experience for the learners outside the class. Tallboys (2016) explains about the wider museum audience and highlighted the educational perspectives of the museums. By addressing about multiple resources, exhibits and educational practices in museums can make leverage to the students to highlight their skills. Robins and Woollard (2003) defines that museums are living repositories of cultural heritage and knowledge. They holistically describes the diversity in the cultures that helps the students to get deeper appreciation regarding cultures and civilizations. The students foaster inhand experience that creats the sense to discover their own skills. It is a platform for the students to identify the connection between the subjects and integrate their skills. The educational museums inbuild the sense of intellectual exploration and curiosity in pupils. The museums significantly contributes to develop curious and well rounded learners therefore, the researcher prepared multiple effective activities to make the museums interactive resource. The literature review emphasis on the interactive learning approaches for the better learning of the students therefore, the conducted research has utilized museums for the experimental purpose to check either it can improve the learning of the students or not. It has been observed that the null hypothesis was rejected because the results showed the good and improved performance of the students after the experiment of using museums for learning history. Milligan and Wadman (2015) focus on the practical learning that contributes to develop practical skills i.e. critical thinking skills, observations, collaboration and analysis in students. Interactive participation promotes the interactive learning that enhances the visitors engagement which deepens the understanding.
regarding various concepts. The personal visit of the learners helps them to design their own individual skills and abilities.

3. Method of the study
3.1. Research Design
The study contained a quantitative approach collect parametric data. One group pretest-posttest design was used in the experimental study because the researcher selected one group of participants to be observed.

3.2. Population, Sampling, and Research Tools
The conducted research chosen elementary school students of Rawalpindi markaz by using the convenience sampling technique. The aim of the study was to explore the role of museums as a resource in learning history at the elementary level. Therefore, the study conceded teacher-made tests to measure the academic performance of the students. To collect the data the researcher developed a test of twenty MCQs to measure the performance of the students. The performance was measured before and after visiting the museum. The test items were based on close-ended questions. The researcher validated the test from SST (Senior Subject Specialists) working in the Punjab School Education department. The pretest-posttest was conducted in school before and after visiting the museum. The twenty teaching sessions were conducted in the class and two visits were arranged to the Pakistan Monument Museum Islamabad. The researcher engages the students in the museum through various interactive activities i.e. profile presentation of the personalities who participated in the Pakistan freedom movement, sketch making, presentations, identification of the events, exploration of the museum, and interpretation of the museum. The students participated very warmly. The researcher calculated the pretest-posttest marks of the students. Inferential statistics and paired t-test was used to calculate the data.

4. Results and Discussion
The scores of the pretest-posttest were calculated by using paired t-test. The result indicated a significant improvement in the performance of the students. The pretest scores indicated (Mean= 9.44, S.D= 3.22) and posttest scores indicated (Mea= 17.91, S.D= 1.88). The scores identified that the performance of the students improved by using the museum as a resource. The below tables showed the summary of the results.

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest Scores</td>
<td>9.44</td>
<td>3.221</td>
</tr>
<tr>
<td>Posttest Scores</td>
<td>17.91</td>
<td>1.88</td>
</tr>
</tbody>
</table>

Table 1 Pre and post-test scores of respondents (n=34)
Table 2 indicated that paired values of $t = 20.242$, $SD = 2.440$, $t = 20.242$, $DF = 33$, and $\text{Sig} = .000$. The score showed a significant gain in the scores of the post-test. The performance of the students improves by using the museum as a resource. The findings explain the significant role of museums as a resource in learning history.

The researcher conducted an experimental study to provide the ways of improving the learning of history and developing the interest of the students. This study provides the data along with the practices which has been held during the visits. The conducted study connects the multiple perspectives by literature and experiment the new way of utilizing museums as an interactive resource. Abd Ei Wareath (2022) states that museums are the innovation centres that contributes to enhance the learning. It can deepen interdisciplinary learning. The educational museums provides opportunities to explore the historical connections and interconnectioness of the knowledge. Chin (2004) talks about the museum settings that provides new ways of exploration and learning. Different types of museums nurture multiple aspects of the learners. Zhan (2008) describes the effectiveness of the collaborative environment. He explains that students of the elementary level are at the formal operational stage and construct their own perspective by having logical experience of environmental events. The thinking of the students develops through different stages. At these formal operational stage students builds their intellectual development. Students relate the happenings through real situations. A history is an event that cannot be rearranged or restructured therefore, the need for historical evidence requires the most. The conducted study explains the interactive utilization of museums as a resource in learning history for students of the formal operational stage. To lower the burden in the learning of history and make it more effective the current study highlighted the communicating utilization of historical museums. Psychologists, anthropologists, and educationists suggested visiting museums to interact with historical factual situations.

5. Conclusion
Museums are the major resources to preserve collections regarding historical and cultural values. The need is to transform these values and make the students intellectual, visionary, and motivated therefore, they can develop an interest in studying history. The cultural study highlighted the utilization of historical museums for the learning of history at the formal operational stage. The study helps the teachers, administration, and policymakers to take steps regarding including museum utilization for a better understanding of the students. It also highlighted the intellectual level of the elementary school students to make them creative, logical, intellectual, and in-depth understanding. Jenson (2010) explains the multiple theorists points of view about learning and
extracurricular activities. They elaborated on the supportive environment outside the class that builds the interest, contextual knowledge, and vision of the students. Educationists and anthropologists recommended museums as an operative learning resource to explore the historical background. They are the spots that pushed the visitors to achieve innovative perspectives, to recognize and achieve from the assortments and rich settings. The constructive theory explains that the learners have their own lens of experience and perspective. It builds up when the learner starts interacting with the actual environment. The psychologists explicate that when we provide a productive environment to the students that ensure cooperation, participation, and collaboration in the learning process. Bay (2010) emphasize providing a collaborative environment to develop their abilities and make learning effective.

6. Recommendations
The following recommendations are:
1. Museums should be incorporated as compulsory part for the betterment of the learning and interest of the students.
2. In person visits to the museums can enhance the vision and perception regarding history.
3. Students may develop the sense of exploration that improves their self-confidence.

7. Limitations of the Study
The researcher planned to conducted four visits to the museums but because of permission of the school administration only two visits were conducted.

8. References


