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## Innovation in the practice and theory of Museum education<sup>2</sup>

**Abstract:** The paper focuses on the developmental trends of museum education. Besides defining the current tasks and functions of museums the author's main purpose was to summarize the innovative methods of museum education. Museums try to accommodate themselves to the changing social, cultural and technological environment by using novel educational methods and programs. The author identifies the most influential steps in the development of museum education's theory by referring the work of Dewey, Piaget, Lord, Hein, Eilean Hooper-Greenhill and Nina Jensen. The paper gives European and American examples to expose the currently spreading innovative methods and programs of museum education.

**Key words:** school museum, museum education, innovative methods.

### Changing functions of museums

The historical development of museums is synonymous with the history of museums' changing role. Museums have acted changing roles in different societies in different historical periods. Museums as possible institutions of managing social, cultural or moral problems have carried great responsibility for cultural policies since the end of the 18th century. Nowadays when economic and moral crisis is repeatedly emphasized museums' value protector and value creator feature have received special significance. The problems of public education, the lack of tolerance, the dissolution of traditional communities and the accelerating social and cultural changes equally mean challenges for museums.

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In our rapidly changing society museums have to redefine the role, function, practice and results of museum education. The increasing number of active elderly, single and unemployed people, and the high number of separated families mean challenges for museums since these target groups require the expansion of special programs organized by museums. Many communities have become multilingual and multicultural. The new type of cooperation with local communities requires many skills and competences which were not necessary in the traditional museum education of a couple of decades ago.

Museums play increasingly important role in lifelong learning and they get have increasing importance in the field of formal, nonformal and informal learning as well. While museum pedagogy has developed a lot since the middle of the 20th century nowadays the exploitation of the opportunities of museums' adult education is the most current question with which museum professionals have to deal.

From the beginning of the 21st century museums' traditional task-system, which previously included three items (collecting, conserving, exhibiting) has widened with new functions. Nowadays museums have to take part in building local communities, in preserving local traditions, and in strengthening local identity. This role of the museum is particularly important in our globalized world. Redefining the functions of museums and undertaking an active role in organizing local communities have become new tendencies. For instance the new Portugal Museum Act passed in 2004. emphasizes the important role of museums in building communities and defines museums as „pillar of open cultural identity reflecting each community and its values” (Pestana, Joyeux, Rekola, 2005). Beyond organizing programs the dialouge with local communities are evident in such constantly promoted relation networks as museums' friends clubs. Sometimes these groups have influence on the formation of programs offered by museums and their members often take part as volunteers in the educational activities of museums.

In addition museums have an important role in preserving identity of national and ethnic minorities. In the ethnically heterogeneous societies of Western Europe museums (particularly ethnographical and anthropological museums according to their character) consciously undertook this task. The museum is an ideal place for this aim, because both human resources (curators and museum educators who know and understand the traditions and habits of the particular ethnic group) and material conditions are given. Museums can offer space for programs where immigrants who want to preserve their original identity can learn about or recall their own traditions, habits, folk art activities and feasts. Its significance is obvious if we examine the largest non-national groups in the EU

countries: Turkish citizens in Germany, Denmark and the Netherlands; citizens of former colonies in Portugal and in Spain; migrants from Albania in Greece; citizens from other parts of the former Yugoslavia in Slovenia; Czech citizens in Slovakia; and citizens from other former Soviet countries in Estonia, Latvia and Lithuania.

In Hungary the gypsy population appears as a potential target group from this aspect. One of the largest problems of the gypsy society is that gypsy people often are not aware of their own cultural values and traditions. The Ethnographical Museum in Budapest possesses a considerable gypsy collection which includes very wide range of objects in connection with the Roma cultural heritage. However it would be desirable to increase the frequency of exhibitions displaying works of gypsy artists or gypsy traditions and the number of programs connecting to these topics.

Parallel with the formerly mentioned functions museums also appear as institutions which work to enhance the level of tolerance and to accept differences. This becomes possible by displaying exhibitions about cultural values, products, colourful folk culture of different nations, nationalities, or ethnic groups.

We should also highlight recently appearing programs like language-learning projects or projects in the service of family reintegration among new tendencies in relation to public education and adult education performed in museums. Museum programs of family reintegration intend to restore communication between family members and improve the quality of social relations. The theoretical base of the idea is that museums offer an opportunity to improve family relations by providing commonly obtainable experiences for family members. The lack of the commonly obtainable experiences has a negative effect on any kind of social relations thus it is problematic from the aspect of relationships between the parents and children as well. Nowadays, when solitary free-time activities such as watching television or browsing on the internet are getting great importance, this kind of museum initiative transmits important values. Heart of the program is the commonly obtainable experience thus museums target the families as units. Interactivity, the methods of improving social competences and communication skills and true to life programs, play an important role in family reintegration programs organized by museums.

From the middle of the 20th century the requirement of the entertainment function of the museums appeared. In the last couple of years a new expression got around, expressing correctly the current tasks of the museums. That expression is „edutainment”, a contraction of the words entertainment and education. Teach by entertainment or entertain by teaching, the order is interchangeable, the meaning of the expression is the same. Edutainment is important from two

aspects. On one hand it enhances the effectiveness of learning by connecting learning processes with enjoyment, on the other hand it helps to attract visitors thus it is important from the point of marketing.

Currently the greatest challenge for museums in connection with lifelong learning is to find opportunities to fit their virtual exhibitions and websites to the requirement of edutainment. The great North American and Western European museums are exemplary in this field. The endeavour of reaching school teachers by providing downloadable databases, lesson plans and study-aids to improve their work with the students in and outside the classrooms is especially commendable. Many museums offer opportunity to fit their internet sources into the school curriculum connecting collection based learning possibilities with the frame of formal learning in schools.

Finally, the increasing importance of museum professionals' further education is another important characteristic of museum education in the 21st century. Possessing new kind of competences and knowledge what most of the museum professionals didn't learn in the traditional higher education training system have become important due to the innovation of museum education methods and interpretation.

By now museums serve the society in diverse ways. The AAM (American Association of Museums) defined the present day museum as „/.../ a bastion of lifelong learning, an economic engine, a social services provider, a therapeutic oasis, a source of civic pride and an invaluable community asset” (AAM Annual Report, 2008).

John Walsh's publication from 2004 gives us an interesting amendment in defining the new functions of museums. He pointed out that attendance at art museums as potential free-time activity was revalued after the terror attack in 2001. As the author described the phenomena: „We learned after September 11 that art museums can provide a kind of refuge and reassurance to people disoriented by brutal, incomprehensible events (Walsh, 2004: 78)”.

### **Development of the theory of museum education**

Defining museums as a scene of learning is not new-fangled since studying pieces of collections gave important information for artists about the technique and construction of the composition in former times as well. At that time the learning process was designed to facilitate the copying of great masters' fine pieces of works.

The theory of museum education derives from the idea of Enlightenment and from the different schools of Reform Pedagogy that appeared in the beginning of 20th century. The intention to make the cultural heritage preserved in the collections publicly knowable emerged in the age of Enlightenment. The idea to exploit museums in school education was first published by John Dewey in his work „The School and Society” in 1912. Dewey’s idea was revolutionary in the beginning of the 20th century since the „school of the future” he presented in his book gave totally new functions for formal education. The imaginative school building reflected Dewey’s principle that the most important role of the school is to prepare children for life. From the view of museum education it had special importance that Dewey put a museum in the center of the imaginative school building (Dewey, 1912: 57-66). Dewey’s conception unequivocally broke with the formerly exclusive Herbart’s theory since it put children’s practical activity and acquisition of knowledge in the center of the learning process. This idea has been museum education’s most important establishment of principle up to now since interactivity and learning through activity are the most important forms of museum education.

Dewey’s educational observations are still valid to art museums’ educational mission. When Dewey wrote „every art needs physical organs, eyes, hands, ears, the speaking organs...” he emphasized the importance of the autonomous creative work of children. In Dewey’s conception museums were assigned a central role in formal education. The insistence on the importance of varied activities derived from one’s own experiences is also regardable as one of the most essential antecedents of museum education.

Beyond Dewey, Jean Piaget had remarkable influence on the development of museum education theory. His theory which defines children as active human beings searching for information is the considerable base of the present day practice of museum education. Piaget’s theory, which divided cognitive development into four main periods, had a great effect on the development of the methods and aims of museum education distinguished by different age groups. Piaget’s most important effect on museum education is in connection with discovery learning since Piaget regarded children as potential researchers and scientists. Discovery learning is one of the most popular educational methods used by museums nowadays and this idea of Piaget is the base of the hands-on, interactive exhibitions. According to Piaget the „child’s task is to discover the universal rules of logical and scientific thinking” (Atkinson, R., Atkinson, R., C. Smith, E. E., 1999: 85). Innovative museums would like to promote this by their interactive exhibitions.

There are several definitions of museum learning. According to Barry Lord museum learning is „a transformative, affective experience in which we develop

new attitudes, interests, appreciation, beliefs, or values in an informal, voluntary context” (Lord, 2007: 17). Eilean Hooper-Greenhill defined the ways in which museum education is different from school education. In Hooper-Greenhill’s opinion learning in the museum „is potentially more open-ended, more individually directed, more unpredictable and more susceptible to multiple diverse responses than in sites of formal education” (Hooper-Greenhill, 2007: 4-5). Barry Lord defined four modes of museum learning taken as a function of visitor apprehension. He distinguished contemplation, comprehension, discovery and interaction as different ways of receiving the information provided by museum exhibitions (Lord, 2007: 19).

In our day the research and theories of George Hein have one of the strongest effects on the development of museum education. Hein substantiated the constructivist school of museum education. The constructivist museum education program inspires the children to gain experiences, draft assumptions and draw substantive conclusions. Competences which are improvable by social interactions, connections between learning and language usage, motivation and intellectual activity have high priority in the constructivist school of museum education. (Hein, 1999)

John Falk and Lyn Dierking emphasize the importance of the personal, social and physical contexts in museum learning. According to their definition museum learning „is an active process of assimilating information within the three contexts, and it requires accomodating new information in mental structures that enable it to be used later” (Falk- Dierking, 1992: 101). This kind of explanation of museum education examines meaning making which is based on already existing knowledge.

Based on the theoretical work of Jean Piaget and Erik Erikson, Nina Jensen (Jensen, 1994: 110) emphasized the different needs of children, teenagers and adults during the process of museum learning. She suggests enhancing the effect of the two authors’ theories in the field of museum education.

New kinds of approaches have prevailed among British museum professionals recently. The expression „museum learning” has started to spread instead of the term of museum education. (Jensen, 1994: 110) This change expresses that the emphasis of museum education was removed from the teaching process to the attainable competencies and knowledge.

## Innovation in the practice of museum education

Museum education has strong roots in the United States. While most of the European museums remained ivory towers of the scientists and upper-classes until the end of the 19th century a new type of museum was established in the United States in the second half of the 19th century: the museum which opens its doors for wider public.<sup>3</sup> American museums have long been advanced in the innovation of museum education methods. The first hands-on exhibitions, the first museum newsletters developed especially for children, and the first discovery rooms also came from the USA. The special significance of museum education in the USA is manifested in that the American museums "annually spend more than \$ 1 billion to provide over 18 million instructional hours for educational programs such as professional development for teachers, guided field trips, staff visits to schools, and travelling exhibits in schools" (Roberts, 1997: 4). Only those museums are allowed to participate in the accreditation program of AAM which „are essentially educational in nature”.<sup>4</sup>

The ranking results of PISA-researches inspired the European governments to turn their attention to public education. It has become a general phenomenon that the European countries assign important roles to cultural institutions like museums in solving the problems of public education. In Britain there has been a strong movement towards linking museum education to the requirements of the National Curriculum since the 1980s. (Hooper-Greenhill, 2007: 6-7) Adjusting museums' educational activity to the developmental competences defined by national curriculums is an increasingly spreading practice all over Europe. For instance the Natural History Museum in London distinguishes its museum education programs according to different ages and the acceptable knowledge defined by the National Curriculum. The institution which is one of the most innovative museums in the world follows the scheme used in formal education in distinguishing its museums education programs among six age groups. (the so-called Key Stages)

The same intent appeared in Central Europe. The most important developmental aim of the Hungarian cultural policy concerning museums is to enhance the links between museums and formal education and to promote the educational role of museums. The current Development Program of Museums emphasizes the importance of a kind of cooperation between museums and schools which considers the key competencies defined by the Hungarian National Curriculum.<sup>5</sup>

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<sup>4</sup> <http://www.aam-us.org/aboutmuseums/whatis.cfm> (02.05. 2009.)

<sup>5</sup> The Hungarian National Curriculum follows the European Union's competence-system in its definition of key

According to this, the improvement of the following competencies will get higher importance in museum education in the near future: communication in the mother tongue; communication in foreign languages; mathematical competence; competences in natural science; digital competence; learning to learn; social and civic competences; sense of initiative and entrepreneurship; cultural awareness and expression.<sup>6</sup>

Beyond traditional museum education methods like guided tours, gallery talks, worksheet-based museum programs, manual activities, adaption of dramapedagogical methods, quizzes, parlour games, story-telling and debates, and other new methods that have appeared recently. Integrating different info-communication and multimedia appliances into museum education and spreading of the internet-based lifelong learning programs are the most important innovations of museum education today.

Adopting mobile-learning and podcasting in the museum environment is the latest innovation of museum education. Museum programs based on wireless communication appliances provide novel learning opportunities which combine traditional museum education methods with the development of digital competencies and the improvement of cooperation skills.

Due to its innovation, audio guide is a possible form of adapting mobile-learning in museums. Beyond the methodological improvement of traditional audio guide a special method has occurred recently which offers a chance for the visitors to „eavesdrop” into the conversation of museum curators, restorers and scientists. This method gives a new opportunity of getting acquainted with the museum because it provides a novel aspect of inquiring museum objects and in the same time it conveys more directly the scientific work to the visitor.

Digital story-telling is another novel museum education method. The social and multicultural aspects of digital story-telling are equally important. Digital story-telling contains different activities on the part of the participants, for instance writing screenplays, editing, choosing music, making audio effects, working on the visual figure, etc. (Springer, J., Kajder, S., Borst-Brazas, J., 2004: 123-131).

Multimedia and/or digital camera based museum programs also occur more and more frequently. These programs are remarkable not only because of the development of digital competencies but also because of framing attitudes toward new technology. Drawing older generations into multimedia based museum programs has special significance from the latter aspect.

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competences

<sup>6</sup> 243/2003. (XII.17.) Government Statute about the publication, initiation and adaption of the National Curriculum. Chapter III. Hungary



Employing museum educators who suit the different ethnic and social backgrounds of the different groups of visitors is another interesting novel initiative of museums. The method is popular especially in the United States where museums increasingly try to reach the different ethnic/ social groups and subcultures like this. The quintessence of the method is the personality of the museum educator who has a similar background to the learners in a certain program. For instance a group including people with Native American roots is guided by a Native American museum educator, or programs organized especially for college students performed by college students. The point of the method is to enhance the trust towards museums and to promote relaxation by working with a museum educator who comes from a same/similar environment. One of the most successful examples of the initiative occurs at the Metropolitan Museum, where the CGM<sup>7</sup> - a group of 25 local college students- organizes and produces programs for other students. The main purpose of the program is to improve connections between campus communities and the museum, and to enhance college students' affection for the Metropolitan.<sup>8</sup>

Special programs performed by museum educators and curators in schools have continued to spread recently. The main purpose of the program called „Scholars in the school” is to enhance trust toward museum programs by providing opportunity for the kids to become acquainted with the scientific work of museums in their own, well-known environment. Children's aversion to science and high art is the most frequent reason cited for having reservations about museums. Partial or complete dissolution of this reservation and arousing children's interest become possible by opening museums towards schools and kids. The program is especially popular in the United States, such outstanding institutions like Smitshonian take advantage of the method.

The purpose of the program called „Meet the scientists” is to provide opportunity for the visitors to become acquainted with such behind the scenes museum activities as scientific research. The novel method promotes museum education from two aspects. On one hand it enhances the inquiry about museum programs by building upon generally existing human desire in reference to getting acquainted with the unknown secrets of the world. On the other hand it provides concrete knowledge about the nature and results of scientific work in museums. This novel approach of museum education showed up in the Darwin Centre of the Natural History Museum in London. The daily organized „meet the scientist” program provides an opportunity for the visitors to get into direct

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<sup>7</sup> College Group at the MET

<sup>8</sup> [www.metmuseum.org](http://www.metmuseum.org)

touch with the museum's researchers and to participate in debates concerning natural sciences.

Due to the development of virtual technology museums' websites have a special role in education and communication. Familiarization of the visitors with objects which are not on view in the exhibition has become possible by creating virtual tours. Websites of the bigger museums have been already integrated to the educational activity of the institution all over the world. By solvable playful online exercises, by downloadable free worksheets that demonstrate comprehension of the exhibit, and by services providing interactive learning opportunities, the websites of museums are definable as special educational appliances. Providing possibility for the digital museum visitors to create their own individualised museum websites is the latest innovation of museum education. Bigger museums offer the opportunity to their visitors to create their own internet profile on the museum's website, and to share images from the museum's database with their acquaintances by forwarding them in e-mail or multimedia message service. Creating direct connections between museums' websites and popular social networking websites such as MySpace or Facebook gives us a good example how to link high culture with technological innovations.

### Conclusion

The literature of museum education has become remarkably rich and high quality in the last decades. Due to the research and theories of George Hein, Barry Lord, Eilean Hooper-Greenhill, Hazel Moffat, Vicky Woollard, John H. Falk, Lynn D. Dieking, Ivan Karp, Richard Sandell and other professionals, museum education has become an independent discipline by now. New type of museum programs and the multiplicity of innovative methods and appliances appeared in the last years. Strengthening of the cultural mediator functions of museums has affected the work of curators as well because there are more and more initiatives which call for the active participation of curators in the educational activities of museums. Museum learning has received special importance in the organization and design works of the exhibitions. Building hands-on objects and interactive appliances into the exhibition has become general endeavour of the museums. The educational role of the museums gets increasing importance in the three-dimensional space and in the virtual world as well.

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## Inovacije u teoriji i praksi obrazovanja u muzejima

**Apstrakt:** Ovaj rad se bavi razvojnim trendovima u obrazovanju u muzejima. Osim definisanja savremenih zadataka i funkcija muzeja glavni cilj autora jeste da predstavi inovativne metode obrazovanja u muzeju. Muzeji nastoje da se prilagode društvenim, kulturnim i tehnološkim promenama koristeći nove obrazovne metode i programe. Autor predstavlja najvažnije korake u razvoju teorije obrazovanja u muzejima, ukazujući na rad Djuia, Pijažea, Lorda, Hajna, Huper-Grinhilda i Jensena. U radu su dati evropski i američki primeri kojima se predstavljaju najrasprostranjenije inovativne metode i programi obrazovanja u muzejima.

**Ključne reči:** školski muzej, obrazovanje u muzeju, inovativne metode.

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