



Factors Behind the Construction of Student's Personal Learning Environments in the Museum

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1. Introduction

In order to justify the name of a museum as professional cognitive institution, where a smooth effective dialogue with museum visitors would take place, it is necessary to implement the most important objective of museum education. It is pointed out that it is necessary not to educate but to relate and feel along, not to teach but try to provide visitors with intellectual and meaningful pleasure [4]. It is also important not to leave museum visitors indifferent; thus it is necessary to offer, give, allow to take, study some material not forgetting that the aim of a museum is not itself and not its objects – it is the space and medium to carry out the important mission of education.

Thus it is now expected from museum institutions that they reacting to society needs provide versatile public visit based on the perspective of learning by entertaining. There, as Allen [1], Falk, Dierking [2] state, freedom of choice, the possibility of individual learning following own interests, the possibility to investigate, to acquire information, to develop different ideas as well as to construct knowledge, new visions exist.

If to emphasize different possibilities of learning at a museum, it is inevitably spoken about the importance of museum potential learning and educational environment as well as the formation of personal learning environment on the basis of the first ones.

The access based on learning paradigm allows to newly looking to possibilities created for learning. The theoretical base of these possibilities – is *educational environments*. The educational environment is considered as a dynamic space of information learning activity, which is created and influenced by an educator as well as determined by the aim of education, the content that matches it and forms, methods and means of education that sustain its assimilation, as well as other things or subjects present in that environment, which in some influence a learner, educational information and / or its dissemination towards a learner. A learner acts in this environment; his/ her learning is directly influenced by factors of educational environment through the projection of educational environment towards his / her learning environment.

When analysing non-formal education, not only educational but also *potential learning environments*, which are formed from person's activity situations, life events or his / her participation in common activity with other people, under which information is shared, are surveyed. These environments distinguish in fixed verbal (written, visual, and lingual) or virtual information as well as communication channels, e.g.: TV, newspapers, the Internet.

In order to attain more qualitative and effective learning of pupils when pupils would be able to form goals of life-long learning, would experience pleasant, attractive learning supplemented with discovery joy, would acquire new knowledge, experience, would improve other own abilities, it is necessary to supplement their learning with the possibilities of potential, educational learning environments provided in the museum. When disclosing the importance of individual learning in the contemporary museum and when the formation of personal meaning of every learner is particularly important, the context of *personal learning environment* is emphasized. Personal learning environment – is the environment individually identified by every person according his / her learning goals, abilities, needs and experience; in other words, it is the part of information space surrounding a person, which the person recognizes as his / her learning environment and uses it [5].

Although the education in the museums, the organization of their environments have been subject to analysis [1], [2], [3], [7], there is a lack of research that would analyse how visitors react to the museum environment. What personal learning environments in the same museum are identified by various visitors? What factors determine the construction of such personal learning environments? Can certain types of visitors as learners be identified?

The **aim** of this paper is to reveal the factors underlying the formation of personal learning environments in the museum. This paper is based on the constructivistic theory and concepts of lifelong learning as well as *edutainment*. The research methods include analysis of literature and documents sources.

The first part of the paper presents the theoretical analysis of the following aspects: a) the concept of museum education; b) the essence of the museum potential learning and educational environments. The second part presents factors behind the formation of students's personal learning environments out of potential learning and educational environments, thereby illustrating his/her relationship with the aforementioned museum environments.



2. Features of museum potential learning environment and educational environment

Every museum, when creating potential learning and educational environments, pays great attention to the choice of education philosophy, which is the key to success in order to implement educational goals. In the museum, non-formal education institution, which contains so much property that there is the potential to interest, educate, stimulate the understanding of pupils by enabling them to take responsibility for their further learning, according to Hein [3], it is not sought to duplicate the school; however by organizing learning processes, school curriculum is expanded, different educational methods, forms are applied, and versatile cognition possibilities are provided.

Organization of learning activities in the museum influences schools and teachers to work off traditional isolated classroom environment. They, first of all, strive to add variety to the learning that has become routine in the classroom, and secondly – to experience new real world of things in the museum, the same planned thorough and full of assignments, which is especially necessary for a contemporary learner.

Teachers together with pupils most frequently choose educational activities in environment of the museum not unintentionally but knowing that the topics being studied in the museum are coordinated with school curriculum. This, according to Lucas [7], enables the development of the topics being analysed in the classroom by complementing them with significant cognition. It is important for pupils that in the museum they can learn with pleasure, be relaxed and feel entertainment. It is necessary to point out that the pupils who in this case can be named as *learners initiated by teaching* type together with teachers going to the museum have to discuss beforehand what topics will be studied and what forms and methods will be applied.

Referring to Hein [3], the philosophy of museum education as well as attained educational goals being formulated is founded differently:

a) didactic – interpretative;

b) discovery methods;

c) the theory of constructivism, on the basis of which the author constructed the comprehensive model. It involves realistic and idealistic viewpoint, different learning theories, methods; each combination is related to different pedagogical methods.

Didactic – interpretative method, according to the author, is identical to the model of teaching / learning at school. A museum educator presents principles, gives examples, which illustrate them and repeat the material till visitors remember it. It is known that such teaching principles stand at school as well, where a teacher explains the material of a subject, presents information, practical examples in order that pupils would better master new knowledge. It is evident that this method has essential drawbacks because a visitor and his / her needs are ignored; no space is left to choose by himself / herself what and how to learn, in what pace or intensity.

An important place to *the method of discovery*, which valued in museum education very much, is also given in the model offered by Hein [3]. Here learning is active process when people experience changes, get more involved into learning material than only observing it, search for answers by investigating objects, asking, interpreting, participating in practical activity. Namely, the latter is emphasized. The application of this method is mostly observed when constructing and organizing educational programmes in the museum; they, according to McManus [8], are constructed in order to render pupils the knowledge according to certain learning programme or in order to consolidate and deepen the knowledge acquired at school.

In presenting *the theory of constructivism*, the model of Hein [3] refers to the idea that learning is the active process of meanings and senses being formed by attempts of a learner when it is experimented, searched for solutions by thinking and learning during practical activity. Thus learning is activated through practical „*hands – on*“ activities; however, priority attention is paid „*minds – on*“ activities that stimulate thinking and reasoning. Learning process can be expanded without a teacher and teaching methods, by stating that the best teacher is experience. This environment does not require understanding of the exposition correctly, the way compilers have envisaged, but here visitors are encouraged to interpret, understand individually, according to life experience of every visitor. Thus in such exposition *self-directed learners* (motivated, possessing the aim to learn, identifying learning environments, able to identify learning needs, recognizing independent, group learning, application of reflection) as well as *random learners* (not motivated, not possessing specific needs to acquire new knowledge, seeking for entertainment, attraction) can most frequently implement their learning possibilities.

It is evident that the *museum* – is the educational institution implementing teaching by entertaining; here learning is being implemented by applying the method of discovery and theory of constructivism.

When learning by the method of discovery, different practical assignments „*do-it-yourself*“, „*hands – on*“ are offered; they activate and encourage a learner to act, investigate, ask and get interested. However, such activities do not induce free thinking, reasoning, creating of personal meanings based on knowledge, but is going through „beaten path“ by seeking entertainment to the illusion of discovery. Thus, according to Khaled [6], when pupils learn in the museum actively, with pleasure and entertainment, not only physical activity, involvement but also active intellectual actions are very important.



Falk, Dierking state [2] that information, knowledge presented in the museum is directly related to personal and social features of a visitor by trying to reveal multiple perspectives, by allowing visitors to freely create their personal meanings referring to their experience. Here learning refers to the constructivist position by emphasizing that learning – is not only what the museum wishes to teach a visitor, but it is more what meaning and sense a visitor attributes to the experience acquired in the museum.

It is evident that meaningful and rich individual's experience very much depends on potential learning and educational environments in the museum, on the basis of which he / she is able to form his / her own personal environments.

When revealing the importance of museum *potential learning environment*, it distinguishes in the following characteristic features: a) learning information; b) channels of information reception: how it reaches an individual: through observation/ activity/ by invoking the live senses (*vision, smell, hearing, taste, touching*); c) and their conditions (*education zones, children rooms, etc.*).

Educational environment in the museum is considered to consist of educational activities (educational programmes, lectures, festivals, concerts, etc.) created by museum employees, educators, which have a particular learning goal, the content that conforms to it as well as educational methods and forms that support its assimilation. In this environment a learner acts; his / her learning is directly influenced by the factors of educational environment through the learning environment, which he / she understands.

3. Factors of formation of personal learning environments in the museum

Museum potential learning environment, which involves entire environment of the museum, its present objects and subjects, learners are able to transform the potential learning environment into their personal learning environments. This, according to Falk and Dierking [2], is determined by their personal characteristics. A learner integrates what he / she sees, acts or feels with what he / she already knows, understands and recognizes. Here it is important how a person works with information, perceives objects and ideas, what his / her learning style is and so on. This influences construction of personal learning environment.

Learning always takes place at certain moment, under certain conditions and always depends on the context [2]. Referring to the ideas of Falk and Dierking [2] as well as Jucevičiene et al. [5], it is possible to offer the model of factors for formation of personal learning environments (PLE) (see Fig. 1).

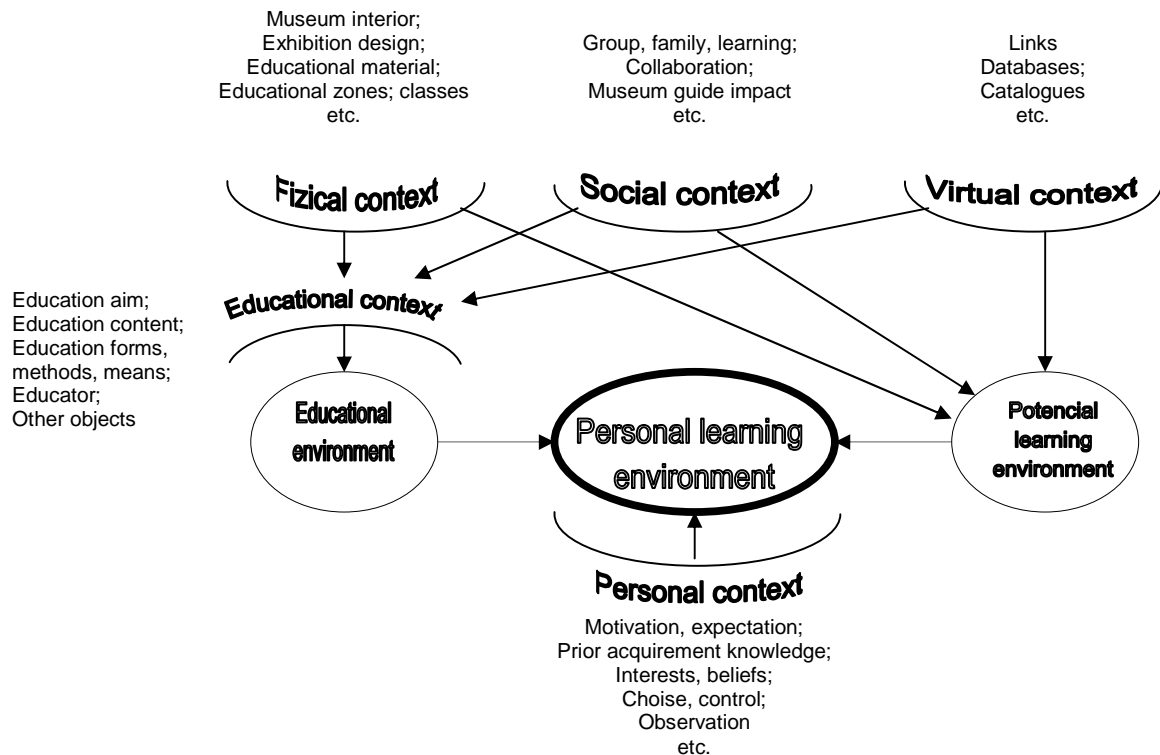


Figure 1. Model of factors for formation of personal learning environments (PLE) in museums

The model reveals the personal context, which defines all personal characteristics that a person brings to his/her learning process – motivation and expectations, previously acquired knowledge, interests and persuasions, choice and control. They are internal factors, on which depends what information, its formation means or dissemination channels a person will choose from educational environments and potential learning environments; so he / she constructs his / her personal learning environment.

The factors of educational context forming the educational environment and able to influence the construction of personal learning environment are as follows: education aim, content, methods, forms, means, an educator, his/ her competence and other features as well as learners, whose activity can influence the person, who is forming his personal learning environment from this educational environment. Educational environment in the museum can be created by a) using already possessed physical, social, virtual context of the museum; specially creating educational environment.

Relationships are the factors of social context able to influence the formation of personal learning environment of a particular person through potential learning environment as well as through educational environment. They form when people communicate in the museum with a person, and this communication helps form personal learning environment. Family members, an excursion guide, other visitors can communicate with the person being analysed in this way.

The factors of physical context are the museum's objects, their aesthetics, their exposition, etc., which when used in educational environment can influence the construction of personal learning environment through it. The factors of physical context can act in potential learning environment by influencing the construction of personal learning environment.

The factors of virtual context can be the same factors of physical, social, educational context transformed into virtual environment.



4. Conclusions

- Construction of students' personal learning environments in the museum from educational environments and potential learning environments is influenced by factors of educational, physical, social and virtual contexts, and the degree of their influence is determined by the factors of personal context.

It is logical to assume that factors of educational, physical, social and virtual contexts in the museum interacting in educational environment, i.e. have already become factors of educational environment, can be more purposeful and more influencing the formation of personal environment than the ones acting in potential learning environment.

- It is presumable the formation of learning environments of *self – directed learners and the learners initiated by teaching* will mostly be determined by factors of physical, social and virtual contexts, which are related to the factors of personal context, especially – motivation of learning. Meanwhile the formation of personal learning environments of *random learners* would be mostly determined by factors of physical, social and virtual contexts if they are particularly impellent in the particular situation.

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