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INCLUSIVE DIRECTION IN THE FORMATION OF AN INTERACTIVE EXPOSITION OF THE MODERN MUSEUM AS A PRESENTER OF CULTURAL AND EDUCATIONAL ACTIVITIES

ІНКЛЮЗИВНИЙ НАПРЯМ У ФОРМУВАННІ ІНТЕРАКТИВНОЇ ЕКСПОЗИЦІЇ СУЧАСНОГО МУЗЕЮ ЯК ПРЕЗЕНТАТОРА КУЛЬТУРНО-ОСВІТНЬОЇ ДІЯЛЬНОСТІ

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In the context of global social changes, the inclusive development of an interactive museum exhibition is considered as the creation of a modern information center and presenter of cultural and educational activities for students with various health disabilities. In addition, recently there has been a trend when visitors of different age categories do not passively view the exposition of the museum environment, but have the opportunity to take an active part in the process of obtaining cultural and educational information; engage in personal experiments; carefully examine the fragments of artifacts in the exhibition in their chronological sequence. All these innovations allow students with disabilities to fully immerse themselves in the world of digital technologies and gain the necessary knowledge in the informal atmosphere of the museum space. In this context, the museum space helps to fulfill several socially important functions, namely: support of persons with disabilities; stability and convenience of providing cultural and educational material by means of interactive technologies; and, as a result, to achieve sustainable social development of society. Purposeful activity aimed at finding optimal means of popularizing museums and specifying the material of the cultural and educational program allows us to claim that its changes lead to the stimulation of the development of creative ideas regarding the formation of the design of an interactive educational space. Under such circumstances, the activation of museum activity from the standpoint of improving its functional, information-communicative, and cultural-aesthetic aspects should be developed in an innovative and bright design way, taking into account the latest interactive technological achievements. This inclusive direction completely changes the role of museums, the scale and form of design presentation of their information

material. In turn, the visual material of the developed design projects of the best examples of museum exhibits shows that the interactive form of providing information significantly accelerates communicative and educational processes and is presented taking into account two directions: 1) the formation of the design of the exposition in a real architectural space; 2) solution of the design of the virtual museum space with the display of multimedia 3D projections. Therefore, virtual reality (VR) began to affect the quality of the educational process, moving from the field of games to educational processes in the internal space of the museum exhibition [2].

It should be noted that multimedia educational programs developed for students of different age categories and health characteristics use visual, sound, tactile or taste effects, which allows to significantly enrich the result of the provided information. Three-dimensional dynamic images help simulate real-life scenes and create the effect of presence in the virtual world. A clear example of the use of the virtual learning process is the design of the exhibition for the Wu Kingdom Helv Relics Museum in Wuxi, China. (Fig. 1). According to the concept of the authors of the project, the virtual space has an area of 400 square meters, tells about the rise of the Kingdom of Wu. This example of the design of the museum space demonstrates the formation of a model of an aesthetic and cognitive environment for learning by means of interactive technologies, the main criteria of which are the following: 1*) the criterion of increasing the spirituality of students* (a positive result is achieved due to the generation of 2D and 3D graphics in real time and their combination with pre-made movies). To improve the multimedia presentation, both sides of the walls were completely covered with mirrors. Audiovisual support with more than 30 channels connected to various interactive tools enhances the experience of building a scripted story; 2) *criterion of interpersonal communication*: takes into account the positive impact of the collective form of education; 3) *criterion of continuity*: allows to achieve positive results in a combination of traditional and innovative means of education; 4) *the principle of integrity*: reflects the multifunctionality of the interactive scenario from the standpoint of its composition, technical and artistic means of providing informational material and determining the methods of the educational process.

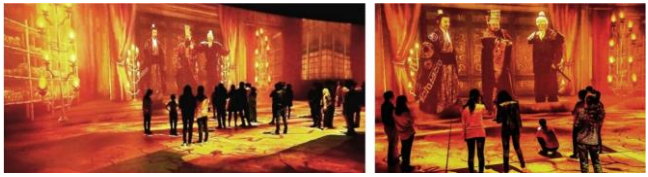

Fig. 1. Wu Kingdom Helv Relics Museum in Wuxi, China. Accessed at https://www.tamschick.com/en/projects/time-machine/

The constant development of digital technologies makes it possible to implement active learning programs to attract different groups of students with unique needs and to instill in them a love for the process of acquiring knowledge by connecting to web cameras or mobile devices. The crucial role of virtual reality images has been studied by specialists in various fields. The result of their work is the conclusion that children with autism spectrum disorders improve their behavioral, communication and social skills best. A clear example of the above is the use of the IVL program, which offers an exceptional educational experience. In this case, students can interact with each other and, thus, improve behavioral, social and communication skills [4]. A prime example is the design of the Royal Ontario Museum's exhibit with a proposed learning theme, The Last Dinosaurs: Giants of Gondwana, which is accomplished through the use of an iPad interface provided to visitors for each installation. The use of augmented reality allows visitors to fix dinosaur skeletons and feel the animals almost alive (Fig. 2). This means of providing educational material, according to specialist research, has unique learning results: it improves the interview skills of students with autism and developmental disabilities, which is manifested in the ability to answer situational questions, manage emotional stress and the ability of students to relax [1]. The data of these studies are confirmed by scientists S. Burke et al., who emphasize that virtual reality helps to manage viewers and maintain the quality of their intensive physical therapy [3].

Fig. 2. Augmented reality of the exhibition «Final Dinosaurs: Giants from Gondwana». Royal Ontario Museum. Accessed at http://robertmcmahon.ca/#/skinviewer/

Therefore, the formation of the design of the exposition ensures the innovativeness and perspective of the learning process, where the main criteria are the inclusive and playful methods of implementing the author's concepts. The combined nature of presentation of the exposition material and the integrity of the compositional solutions in the design of the architectural space of museums allow to ensure the quality of educational practice for all students

without exception and to improve the cognitive and social development of students with special health conditions.

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DIGITIZATION AS A SOCIO-CULTURAL PROCESS

ЦИФРОВІЗАЦІЯ ЯК СОЦІОКУЛЬТУРНИЙ ПРОЦЕС

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Актуальність заявленої проблеми визначається тим, що на всіх рівнях життя сучасної людини, від глобальної політики до структур повсякденності та мистецтва, протягом останніх кількох десятиліть відбулися кардинальні зміни. У цій новій дійсності важливою є не тільки