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Հասարակական և հումանիտար գիտություններ

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INTERACTIVE EXHIBITION AS FORM OF NON-FORMAL EDUCATION

At the present time, we are looking for a model of education that will enable us to solve problems related to the effectiveness of teaching, the quality of education at all levels of education.

In an information society in which information is publicly available, it is difficult to find the right solution to increase these education quality indicators. We perceive effective means in modern organizational forms, applied technologies and try to combine them with each other so that they can be adapted to the needs of modern education.

This article presents a proposal for a new enrichment of the education model for primary schools, which is based on non-formal education implemented when using an interactive exhibition.

Non-formal education: Together with the development of the lifelong learning initiative and the emergence of the need to learn outside the school, education has been divided into several types. The analysis of professional literature shows that today the process of distinguishing types of education is not unambiguous. However, more and more often the proper division of the distinctions is considered the one awarded by the Institute for Educational Research (IBE), which has made the classification of education into:

- formal (formal education),
- non-formal (non-formal),
- informal learning [1].

Distinguished types of education are characterized by appropriate indicators, due to which we are able to properly classify and define the organized and conducted forms of education. Table 1 presents the basic criteria for each of the distinguished types of education.

	Organized learning process	Education program leads to registered qualifications	Education program leads to qualifications	Learning is intentional (it is not involuntary)
Formal education	Yes	Yes	Yes	Yes
Non-formal education	Yes	No	Yes or No	Yes

Informal education	No	No	No	Yes or No
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Table 1. Indicators classifying education [1]

The concept of non-formal education is defined in the literature as institutionally-organized learning, but outside of education and training programs leading to a registered qualification [1]. Therefore, non-formal education can lead to qualifications that are not included in the Integrated Qualification Register. Non-formal education includes all education and training programs, except those organized on the basis of the act regulating the education and higher education system. Other types of non-formal education may include courses and trainings, professional development, interactive workshops and interactive exhibitions not included in the school (formal) curriculum. The effects of non-formal education can be validated, accumulated and transferred. By this wording, we can conclude that qualifications that are not registered can be treated as documenting the fulfillment of part of the requirements and thus be taken into account when assigning a registered qualification.

The characteristics of non-formal education show that it can become an ideal educational environment for primary school children to supplement knowledge and skills that they can not acquire in the traditional form of formal education. Therefore, an ideal model for modern education is to combine these two forms with each other and organize for the schools mentioned above, e.g. workshops and interactive exhibitions.

An interactive exhibition at the University of Rzeszów: In non-formal education, the main attention should be paid to interactive exhibitions organized by universities, museums and other cultural institutions.

An interactive exhibition is the easiest way to define a place where there is an exhibition built on the principle of interaction with the viewer. The viewer has the opportunity to directly interact with the exhibit through touch, sight, and smell [2].

Another definition is the one that incorporates non-formal education as: a process in the course of which, based on experience, cognition and exercise, new forms of behaviour and actions arise or change into previously acquired forms. Learning is therefore a process that accompanies our whole life, thanks to which we are able to learn about the world and introduce new things to it. Due to learning, we are able to learn and develop in various fields, understand ourselves and others, understand the environment in which we live, and the society in which we participate [3].

Currently, the world's largest exhibitions are in the following cities: Ontario, California, Singapore, Tower of Senses, while in Poland: Museum of Municipal Engineering in Krakow, Copernicus Science Center, Hewelianum Center in Gdańsk, Wiembus (mobile exhibition), Eureka (University of Szczecin) [4].

In the shape of the aforementioned exhibitions, the University of Rzeszów has been organizing a cyclical interactive exhibition since 2014, which supports education for schools in the Podkarpackie region. The exhibition is free, and the correctness of its course is being monitored by animators who conduct students according to a specific program.

The exhibition consists of the following exhibits:

- Triumphant Arch - a set of bricks and supports building a construction without a binder and assembling elements of a stable structure acc. the curve of the chain,
- Tibetan puzzle - puzzle, puzzle game 'Hanoi Tower',
- Iqblock - a multi-level puzzle game related to geometric figures,
- A burning skyscraper - puzzle puzzle, a set of special blocks of different shapes to be placed on a stand,
- Mystery of cones - models displaying conical curves and the way they appear,
- Antigravity path - an exhibit showing the effect of the center of gravity on the movement of objects (rolling up the cone uphill),
- Dancing with balls - a pendulum group showing the dependence of the pendulum's period on its length and the formation of a wave and its frequency change,
- Levitating ball - a blower, ping-pong balls and a set of obstacles to overcome with the help of an air stream,
- Frankenstein's mirror - a set of narrow mirrors arranged with breaks due to which the face of two people sitting opposite each other is formed,
- Magic mirrors - a set of mirrors to achieve the effect of multiple reflections,
- Włodzimierz discoverer - anatomical model of the human torso and head with the possibility of unfolding and arranging individual internal organs,
- Hard-headed - an exact model of the human skull with the possibility of its spreading into individual bones and subsequent assembly,
- Spiral of life - a helix model containing 22 nucleotide pairs with the possibility of folding and unfolding,
- Professor Why - virtual, safe chemical experiments in augmented reality technology,
- Sick Bear - trainer sets for performing safe laparoscopic operations
- DNA model - a set for learning how to build human genetic material,
- Magic triangle - set for learning the Pythagorean theorem.

The exhibits mentioned above constitute its main base, but in addition to them, there are many smaller didactic aids supporting the education process. This exhibition is enriched every year with new, even more interesting exhibits from other fields of science. All of them allow students to expand their knowledge and skills in different areas of learning.

Students participating in non-formal activities organized by the University of Rzeszów in the form of an interactive exhibition develop creative thinking, manual skills, imaginative kinetic, spatial, cognitive.

Classes, or rather visiting an interactive exhibition, primarily stimulate students' cognitive interest. Due to the participation in non-formal activities, children and young people can play the roles of a constructor, doctor, logistics, mechatronics, which may help and guide the choice of the further path of life.

Children taking part in the interactive exhibition can also take part in special classes, the subject of which is cyclical in various themes. Currently, the university supports classes organized at an interactive exhibition through classes in the field of, for example, traditional chemistry with the use of modern educational technology which allows you to make safe experiences in an augmented reality. Another type of additional classes is cryptography carried out in the field of the most popular ciphers in the world, namely: Morse code, Caesar code, binary code, Polibius chessboard, Enigma, Vigenère Encryption. The current edition of the interactive exhibition at the University of Rzeszów is supported by organizing classes on programming platforms, such as Scratch, Blockly, Lego MainStorm, Lego WeDo.

Such organization of education supports schools as a whole in education, as we have different areas of knowledge here. Thus, students can participate in such classes in order to learn to use new technologies and learn about the world with the use of modern technical means, and unfortunately we are unable to meet them at today's schools because of the lack of financial resources.

At the present time, an interactive exhibition is an ideal type of non-formal education that allows you to support traditional formal education. Nowadays, formal and non-formal education should be sought for solutions in which students, in addition to concentrating their attention on the messages and skills contained in the core curriculum, will have the opportunity to stimulate their cognitive interests. Practice shows that they are a frequent motivating factor for children and youth to search for and explore topics and topics of interest.

The new education model should in particular consist of a combination of three different types of education listed in the classification (Table 1), with a clear emphasis on non-formal education implemented through, among others, interactive exhibitions.

Teachers should fulfill their role as a mentor on the stage by directing the educational process of children and young people in such a way that they can use other forms of education. This will enrich the educational process and, above all, increase the efficiency of teaching and learning of students.

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INTERACTIVE EXHIBITION AS FORM OF NON-FORMAL EDUCATION

Key words: education, interactive exhibitions, non-formal education, education, a new educational model.

The article presents the contemporary division of education in Poland, taking into account the criteria for each of these types of education. The article presents the need for creating new forms of non-formal education such as interactive workshops and exhibitions. The article presents a new educational model based on an interactive exhibition, which is organized periodically by the University of Rzeszów as a support for traditional education. The article also discusses the types of exhibits appearing at the intercultural exhibition at the University of Rzeszów.

Վարխոլ Թոմաշ

ԻՆՏԵՐԱԿՏԻՎ ՑՈՒՑԱՀԱՆԴԵՍԸ ՈՐՊԵՍ ՈՉ ՖՈՐՄԱԼ ԿՐԹՈՒԹՅԱՆ ՁԵՎ

Բանալի բառեր՝ կրթություն, ինտերակտիվ ցուցահանդեսներ, ոչ ֆորմալ կրթություն, կրթություն, կրթական նոր մոդել:

Հոդվածում ներկայացված է Լեհաստանում կրթության ժամանակակից բաշխումը՝ հաշվի առնելով կրթության տեսակներից յուրաքանչյուրի չափանիշները: Հոդվածում ներկայացված է ոչ ֆորմալ կրթության նոր ձևերի ստեղծման անհրաժեշտությունը, ինչպիսիք են՝ ինտերակտիվ սեմինարներն ու ցուցահանդեսները: Հոդվածում ներկայացվում է ինտերակտիվ ցուցահանդեսի հիման վրա կառուցված կրթական նոր մոդել, որը պարբերաբար կազմակերպում է Ժեշուվի համալսարանը՝ որպես աջակցություն ավանդական կրթությանը: Հոդվածում նաև ներկայացվում են Ժեշուվի համալսարանի միջմշակութային ցուցահանդեսում առկա ցուցանմուշները:

ИНТЕРАКТИВНАЯ ВЫСТАВКА КАК ФОРМА НЕФОРМАЛЬНОГО ОБРАЗОВАНИЯ

Ключевые слова: образование, интерактивные выставки, неформальное образование, образование, новая образовательная модель.

В статье представлено современное разделение образования в Польше с учетом критериев каждого из этих видов образования. В статье представлена необходимость создания новых форм неформального образования, таких как интерактивные семинары и выставки. Мы показали новую образовательную модель, основанную на модели интерактивной выставки, которую периодически организует Университетом Жешува в качестве поддержки традиционного образования. В статье также обсуждаются типы экспонатов, представленных на межкультурной выставке в университете Жешува.