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Modern Educational Technologies in Ukrainian High School

Introduction

The competitiveness increases in the economic and other spheres according to the circumstances of society globalization. And the place of each country in this competition will be determined by science which is a sphere, producing new knowledge and education, humanizes knowledge and makes it active.

In the State National Program of Ukraine „Osvita” is noticed that the development of the educational system and its fundamental reform should be the basis of intellectual reproduction and spiritual potential of the people, the escape of national science, technology and culture to the world’s level. The state considers that education is a strategic resource of socio-economical, cultural and spiritual development of society, improving people’s welfare, national interests and strengthening the international authority, the creation of positive image of our country, the production of conditions for self-realization for each individual.

According to the major priorities the greatest importance for country is cultivating a person with innovative mindset and culture, design of acmeological educational space on the basis of innovative educational development, individual requests, needs of society and the state.

The development of modern society, the growth of the individual’s social role and the intellectualization of the labor demand a new level implementation of the educational process from educational institutions of Ukraine. We specify some positions. Primarily, modern civilization entered to the new type of progress as innovation. That is one that carries a high dynamism, a rapid transformation in knowledge, information and technology. Secondly, modern civilization expands and complicates greatly the communicative environment in which the person is.

Thirdly, modern civilization requires the person-centered education and upbringing. That means the maximum approximation of education and training to the needs of a particular student's personality, his abilities and essence. The fourth are changes in civilization that compelled the necessity of person’s training to new and often fundamentally different technologies. First of all, we mean informatization and computerization.

The humanistic orientation of modern education is based on such goals as the human’s development, his personal qualities. The human’s improvement

determines the development of society. Nowadays it is urgent to create new educational technologies, which have to contribute the general growth of the personality, the formation of ideological culture, individual experience and creativity.

The analysis of the research

The problem of development and implementation of educational technologies, pedagogical technologies and education in general is studied by such scientists as W. Bogoliubov, M. Gorchakova-Sybirskaya, V. Huzieiev, I. Ziazium, T. Nazarova, A. Nisimchuk, A. Saveliev, H. Selevko, B. Slastonin, I. Smoliuk and others. The educational technologies in higher educational institutions with various levels are investigated by V. Bepalko, V. Bodnar, H. Bordovskiy, O. Gavryliuk, O. Dolzhenko, V. Yevdokymov, V. Izvozchikov, M. Klarin, A. Kovalenko, N. Korsunskaya, O. Okolelov, I. Prokopenko, A. Slobodianiuk, O. Filatov, D. Chernylevskiy, F. Yanushkevych.

In foreign pedagogical theory and practice the problems of educational technologies are presented in researches of such scientists as M. Clark, F. Percival, H. Ellington, P. Mitchell, M. Woolman, S. Spaulding, S. Wedemeyer, R. Thomas and others.

The theoretical and practical aspects of innovative pedagogical technologies in higher educational institutions are considered by various scientists. Therefore, the technologies of students' training in higher educational institutions are represented in studies of O. Hoxhberh, O. Yevdokymova, A. Slobodianiuk. The innovative technologies of future teachers' professional training are revealed in the I. Bohdanova research. Socio-pedagogical conditions of higher professional schools are reflected in N. Vasyliiev and A. Buherko studies. The bachelors professional training in Finance and Economics College is considered in the K. Berkyta's work.

Some professional training technologies in educational institutions of I-II accreditation levels created the particular interest to researchers. For example, educational business games (L. Litvin, V. Tkachenko, O. Khomenko) and the problem and task – technology of training (P. Reshetnyk) and others.

So, the problem of investigation the usage of modern educational technologies in Ukrainian high school is quite naturally raised. Among its nomenclative options we can name the following as „educational technology”, „pedagogical technology”, „learning technology”. They are used widely in educational literature and experience, but there is no single interpretation so far.

The main material

„Technology” (from Greek *Techné* is art, skill; *logos* is science, law) formerly means „the science of skill”. Earlier the technology was attributed only to the sphere of material production. Its value was associated with the release of

a certain product, the introduction of the best achievements in practice that indicated the professionalism. Recently the meaning of the concept has grown considerably. It was began to use actively in the branch of the social processes and phenomena, including the opportunity to talk about pedagogical technologies.

We appoint to compare the essence of definition the concepts as „educational technology”, „learning technology”, „pedagogical technology” to determine the common and distinctive signs. Let’s start with the term „educational technology” (it is a technology that is used in education), which is interpreted more broadly than the „pedagogical technology” (that applies only pedagogy). As H. Selevko noted, education cogitates as pedagogical aspects as cultural, environmental, medical, social, etc, [Selevko 1998: 4].

S. Sysoieva keeps to almost the same understanding of the term „educational technology” and calls it „the leading in comparison with other concepts that describe adaptability of the educational process” [Sysoieva 2008: 84].

Sysoieva defines the essence of the concept „educational technology” and indicates, that its „implementation occurs in the teacher’s interaction with the students. And this interaction is characterized by interconnected scholarship, learning, training and development of students” [Sysoieva 2008: 84]. In our view this interpretation proves that educational technology is also a management tool that provides complete changes in the organization of the learning process and directed to guaranteed result’s achievement.

As a result, there was the usage of the concept „pedagogical technology” in scientific apparatus due to inaccurate translation made from the English term „educational technology” [Dahyn 2007: 19].

The analysis of educational literature and experience allows to confirm our opinion that there is no single view on the interpretation of the terms „educational technology”, „pedagogical technology”, „learning technology” in science. But their application in practice usually is associated with innovation processes in education. Significant differences based on the nature of the new educational phenomenon interpretation are explained by its complexity and divergence of the various researchers’ initial positions.

However, all the definitions are valuable as for the science as practice, because they reveal universal diligence of the pedagogical process and guide the practitioners to the various technological models of training and education, which have to be effective remedies on the way to the pedagogical education modernization, including professional training of future specialists.

Innovative educational technologies

Contemporary psychological-pedagogical science and practice use the term „innovational activity”, which means the updating of training technology and restructuring the teacher’s personal backgrounds . Innovation (novation) can be

considered both as a result and a process. Herewith the result (the contentment of social necessities) is seen as the goal of innovative process' management, and the process is as an object of organization.

Nevertheless, the idea, the result of research, invention, design and technology are innovative when they are used to obtain the economic benefit (A. Bovin, L. Cherednikova).

Considering the innovative processes in education it should be noted, that modern interpretation of the „innovation in education” concept is rather contradictory. The innovation in education is often associated with the development and new tools, methods and technologies of education implementation. According to A. Boiko, innovative educational technology often occurs on the basis of a new scientific idea or innovative thought and experience. „The advanced pedagogical experience” can also be identified with the „innovative technology” concept.

The essence and origin of pedagogical innovations are analyzed by V. Kremen, U. Anhelovskiy, I. Pidlasyi, I. Ziaziun, A. Kyrychuk, O. Savchenko, V. Palamarchuk, I. Yermakova, O. Kozlova and others. L. Danilenko explains „innovation“ as a novelty in education (a goal, a content, principles, structure, forms, methods, tools, training technologies, schooling, management), the core of which is a new educational idea. The way of implementation is experimental activity and the importer – is a creative person. Pedagogical innovations are implemented in the context of the overall innovation process and the national education policy of Ukraine [Postavkina, Danylenko 2002].

The innovative process involves the scientific knowledge transformation into innovation. As a result, it appears a new product, goods in the market, and it is recognized by consumers. Regarding to the educational activity the new, theoretically grounded and economically tested technique or educational technology may be as such kind of product, which is brought to the „presentable shape”. It can be represented as a competitive product in the educational market.

The sufficient number of Ukrainian publications is devoted to the questions of innovative processes motion in education (L. Vashchenko, L. Danylenko, I. Dychkivska, O. Kozlov, H. Syrotenko, V. Palamarchuk, I. Pidlasyi etc.), also as the Russian scientists works are (B. Hershunskiy, S. Lazariev, N. Yusufbekova and others).

Educational innovation is the purposeful process of fractional changes that lead to the modification of goals, content, methods and forms of education and training. They lead also to the learning process' adaptation to the new requirements. That's why, pedagogical innovations can display themselves in the development of new approaches on the way to solve urgent educational theory and practice problems, productive ideas, models of the educational process, models of management, pedagogical technologies, methods and resources of learning etc.

Informational and training technologies

The introduction of new technologies into the educational process has always been a step forward and increased the motivation of learning. Nowadays, the innovative technologies include the usage of computer modeling systems, implementation of situational (so-called case) technologies, solving the professional tasks via the integrated use of general and professional disciplines' knowledge [Vorkut 2000].

The development of the information society was and remains a priority course of the state policy in established countries. The prominent example is the „Electronic Europe” program which is a part of the Lisbon strategy for the creation the most competitive, dynamic and knowledge-based economy with a high level of employment and social cohesion in the European Union. The task of creating a system of online education takes a special place in this paper, which is developing dynamically.

The creation of a single information environment in education based on informational network that covers all aspects of the education system, institutions, agencies and bodies management, is one of the main tasks of education system informatization in Ukraine.

Computer technologies are constantly improved, they become more saturated, voluminous, flexible, productive and directed to different user's needs.

Modern educational computer software (electronic books, computer task books, manuals, hypertext information and referral system – files, directories, guides, encyclopedias, testing and simulation programs etc.) is based on multimedia technologies that emerged at the many branches of knowledge junction. The new distance between new technical improvements and education is reduced at the coils of progress.

In recent years the educators' and scientists' attention was drawn by multimedia technology (MMT). We understand multimedia technology as the technology, which outlines the order of the development, operation and usage of tools for information processing with different modalities. Speaking about various aspects of practice MMT in education, the authors restrict the problem consideration of the technical educational tools or „new generation” computer-based learning tools usage, which have such characteristic features like the opportunity to combine the information, that is presented in different forms (text, audio, graphics, video, animation) and interactive mode of work with information [Andriievaska 2010: 68].

In modern educational technologies of Ukraine innovative processes are discrete, cyclical and closely linked to the life cycle of innovation. They depend on the a number of factors, and the leading among them are: on the one hand is the willingness of students to promote modern educational technologies, on the other is the teachers' readiness to the introduction of modern educational technologies in the educational process and the positive motivation of educational activity in this situation.

Conclusion

The modern educational technology in higher education is a scientifically corrected system of forms, methods, means and procedures that are used for the organization and implementation of cooperative training activities of those who teach and those students who study. Such technology is standardized by the purpose of training educational content, place and period of training.

The use of educational technology significantly affects at the quality of qualified specialists' training, helps to enrich and update knowledge and skills, effects at the development of personal qualities, educational process' improvement and its transfer to new advanced technologies at the present stage in the learning process.

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Abstract

The article deals with the problem of modern educational technologies in higher education. The general situation of establishment the modern educational technologies in Ukraine is outlined, which should contribute to the general development of the personality, the formation of ideological culture, individual experience, and creativity. The basic concept of „educational technology”, „learning technology”, „pedagogical technology” are analyzes. The attention is focused on the use of educational technology at the present stage in the learning process that significantly effects on the quality of training of qualified specialists.

Keywords: education, pedagogical technology, educational technology, innovative technology, information technology.