

THE ROLE OF VIRTUAL LABORATORY IN TEACHING INNOVATIVE TECHNOLOGIES AND LITERATURE

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ANNOTATION

The article discusses the effectiveness of using information and communication technologies in the process of literary education. In particular, the question of how to interest students in reading with the help of virtual laboratories and panoramic images was considered.

Keywords: information and communication technologies, virtual reality, virtual laboratory, multimedia, pedagogical software, computer.

INTRODUCTION

“Innovation” is a Latin word meaning “renewal, innovation, change”. The term originated in the West in the 19th century and refers to new concepts that have entered the life of another country through the language of another country and into its way of life. At the beginning of the twentieth century, a new field of science called "innovation" emerged, which was engaged in the study of technical innovations that emerged in the country. The concept of pedagogical innovation began in the West in the mid-twentieth century, and in the science of national pedagogy it emerged over the next two decades and began to be studied specifically. The concept of innovation in relation to the pedagogical process refers to innovations introduced into activities such as the purpose, content, methods and forms of education, the organization of joint activities of teachers and students. The terms "innovation in education" and "pedagogical innovation" in pedagogy are synonymous. Pedagogical innovation is the introduction of innovations into the content, technology and organizational process in order to increase the effectiveness of education and upbringing. Thus, the process of innovation is a concept that includes innovations in the organization of education and the development of its content. A new educational method or a combination of several methods - innovations in technology, tools and methods - is an innovation, and the process of applying these tools to pedagogical practice is an innovation. Pedagogical innovation is a consistent process that involves the purposeful introduction of stable elements and changes that lead to the transition of the education system from one state to a radically renewed state. The process of pedagogical innovation consists of three stages: 1) the stage of generating a new idea or discovery; 2) the stage of processing the idea, making it usable in practice; 3) the stage of innovation. Accordingly, the process of pedagogical innovation can be described as a process of implementing a scientific idea and coordinating the resulting changes in the socio-pedagogical environment. The activity aimed at bringing innovation into pedagogical practice and organizing this innovation management system is called innovative activity. Innovations that are specially designed, researched, or accidentally discovered as a result of pedagogical initiative for the educational process are also pedagogical innovations. The content of pedagogical innovation can be the scientific and

theoretical substantiation of a particular innovation, new effective teaching technologies, scientific and technological description of a pedagogical experience prepared for implementation. Innovation is a means of implementing the achievements of pedagogical science in practice, ensuring the acquisition of a new quality of the educational process in the use of advanced pedagogical practices. Pedagogical innovations should be developed and recommended by the staff of science and education organizations, that is, from below, not by higher authorities such as government agencies, the administration that manages the pedagogical process. Top-down innovations never produce the expected results and do not serve to increase the efficiency of the educational process. In pedagogy, innovations can be divided into the following eight categories according to the intensity or level of innovation: 1. The first category of innovations is aimed at re-creating the existing education system or one of its aspects with some improvement. 2. The second category of innovations includes innovations that involve quantitative changes in the education system without changing its quality. 3. The third category of innovations is the innovations that have emerged through the replacement of tools in the existing pedagogical system, their relocation, improvement of the rules of application. 4. The fourth category of innovations is innovations aimed at adapting the education system to the new conditions without abandoning the old model of education. 5. The fifth category of innovations involves finding a new solution to an existing problem by making simple qualitative changes in some parts of the education system. 6. The sixth category of innovations seeks to create a "new generation" of the education system. Many of the features of the existing system are subject to change. 7. As a result of the implementation of the seventh category of innovations, a "new type" of educational systems with unique quality features will be created. 8. The eighth category of innovations is the high level at which the system has undergone a radical transformation and acquired a completely new quality due to the highest level of innovation in the education system. Pedagogical innovations can be classified according to their state of occurrence as follows: 1. Random innovations. 2. Beneficial innovations. 3. Systemic innovations. Pedagogical innovations that do not arise from the development of the internal logic of the education system and are artificially introduced from the outside are called random innovations. Often, such innovations are commissioned by higher authorities and are doomed to failure. Pedagogical innovations that are relevant to the task of certain educational institutions, but are not scientifically and organizationally well-prepared, and have not become an integral part of the pedagogical system, create useful innovations. The problem of establishing virtual laboratories in foreign countries has been studied by scientists such as F. Amari, S. Wong, S. Demetriadis, S. Cecilia, A. Kozlenko. Working programs, the use of simulators in the learning process, work with panoramic images, the use of the services of systems that control the virtual learning process. In order to develop the intellectual potential and pluralistic views of the younger generation, special attention is paid in our country to the use of multimedia software, the creation of virtual laboratories in the online environment. Ibraimov, M.Fayziyeva, Sh.Ergashev, A.Kalontarov, U.Nasritdinova, Z.Sherdonov, K.Tursunmetov, S.Muhamedova, Sh.Yuldasheva, Z.Sangirova, B.Zohidova and many other scientists and researchers. Studies are being conducted. The lack of multimedia textbooks on specific subjects in the field of national education makes it necessary in the future to combine

the teaching of various subjects, in particular, literature, with modern generations of multimedia electronic complexes. At different stages of literary education, based on the age characteristics of students to show graphic images on the topic, events, features of the portrait of the heroes, the transfer of theoretical concepts in virtual form, to understand the content of the work, ideological and artistic purpose, to apply knowledge helps. Given that literature affects human emotions, the reader should have a deep understanding of the realities of life and art in the process of reading the work, to discuss what they have learned with others, to work with the text to understand literary-theoretical concepts. the goal is to form science-related competencies such as the ability to apply. Therefore, it is difficult for a student to balance the above levels of knowledge and the content of literary education. The software for virtual experiments will be able to provide the teacher with ideas for figurative thinking and the discovery of artistic fabric. In this way, students' tasks of developing literary and verbal competencies such as art, imagery and image comprehension are determined. The program has the ability to express the event-plot in the form of animation, the means of revealing the character, conflict, plot elements, detail and artistic skills. The application of animation to the literary process facilitates the processes of perception, understanding and cognition, and brings reality and events to life in a clear, visual way. In literary education, although it is possible to virtualize theoretical concepts, external portraits of heroes, seasonal changes in the environment, nature, human inner experiences, thoughts, and feelings delivering virtually is a difficult process. Given the impossibility of measuring the character traits or mental landscapes of the characters, a number of questions arise as to what are the main features to be considered in organizing this type of training, how the programs are designed, how the process is planned and implemented, and in what order. To do this, first of all, the impact of the content of virtual laboratories on the effectiveness of the studied science should be determined in terms of meeting the requirements of the teaching process. It takes into account the structure of assignments, the form of delivery of training materials, the availability of methods of searching for and monitoring the necessary information, as well as the organizational features of the learning process in general. It is known that automated graphic and complex design works are carried out using multimedia e-pedagogical software. Pedagogical software tools serve to improve teachers' teaching ideas by formulating, analyzing, applying, and evaluating them in the curriculum.

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