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DIGITAL TECHNOLOGIES IN THE EDUCATIONAL PROCESS OF THE UNIVERSITY

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Abstract

The article is devoted to the problem of introducing digital technologies into the educational process of the university. Today the digitalization of education is becoming one of the priority areas for the development of the Russian system of all levels of education, which is explained by a number of reasons: universal informatization requires the training of a specialist who meets the requirements of modern society, where digital education becomes a means of obtaining knowledge, skills; wide opportunities for using digital education in the practice of organizing the educational process; unhindered access to various information educational resources and platforms, etc. All of them enhance the possibility of training a specialist who can work with information, which is one of the requirements of the Federal State Educational Standard. Thus this technology requires special knowledge and information culture from both the teacher and the students. Digital education has given a big impetus to the development of the system of continuing professional education in general, to the development of distance learning technologies widely used in the practice of training specialists, as well as to increasing the share of student independent work. So the use of various elements of digital education makes it possible to expand the opportunities for students to master their future profession and become a highly demanded specialist in the labor market.

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1. Introduction

Digitalization has affected all areas and spheres of human life, which is dictated by the needs of society for digital resources. Changes are taking place both in the economy and in health care, and education is thus no exception. Increasingly, recently in education, the question has been raised regarding the use of digital technologies in the educational process (Akimova & Shcherbin, 2018). This trend is observed due to the increased inclusion of digital education in the training of specialists in accordance with the requirements of the Federal State Educational Standard. In this connection, in the last decade, digital technologies have been actively used in the system of training highly qualified personnel.

A highly qualified specialist in accordance with the requirements of the Federal State Educational Standard, first of all, should be in demand in the labor market, which means that society places increased demands on him as a subject of labor. It is important to be competent in one's field of expertise and competitively capable. To achieve the set goals in the field of competence and mobility in the training of specialists, a large role is given to the implementation of the competency-based approach in education, since it is this approach that allows the student to acquire the necessary knowledge, skills and abilities necessary for successful future professional activity, as well as his personal development in the learning process (Atanasyan et al., 2007).

Digital technologies make it possible to solve the issue of obtaining a quality education in a short time and at the lowest cost. In this connection, in this article we tried to analyze the possibility of using digital technologies in the educational process of the university, since these technologies today are an important means of developing the education system in Russia.

2. Problem Statement

The problem of the research lies in the insufficient substantiation of the possibility of using digital technologies in the educational process of the university in the training of specialists who meet the requirements of the Federal State Educational Standard.

3. Research Questions

- i. The use of digital technologies in the practice of the educational process of the university.
- ii. Advantages and disadvantages of digital technologies in the system of specialist training.
- iii. Distance learning in the practice of higher education.

4. Purpose of the Study

The purpose is to analyze the possibilities of using digital education in the practice of the educational process at the university.

5. Research Methods

Theoretical research methods include analysis of scientific literature; comparison, generalization and systematization of the research results formulated in the form of conclusions.

6. Findings

Currently the problem of using digital technologies is becoming the leading one in the development of issues related to ensuring the quality of education. Digital technologies are actively used at all levels of education, including in the practice of the university. This technology opens up great opportunities for both the teacher and the student, since it allows you to flexibly respond to the request of society in the preparation of highly qualified personnel and at the same time solve the educational problem.

Thanks to digital resources, we currently have many different types of educational activities: online classes, learning platforms, educational Internet resources, etc., used in the practice of higher education (Karakozov & Uvarov, 2016). These types of classes differ significantly from the traditional forms of work used in the educational process. However, the opportunities for obtaining education using digital technologies significantly expand the space of traditional education.

Among the important advantages of digital education, first of all, its interactive nature should be noted. As Kodzhaspirova stated interactivity allows participants in the educational process to conduct a dialogue in real time through the use of special interactive tools. At the same time, the participants of the training session have the opportunity to see and hear each other without being in the same territorial space (Kodzhaspirova & Kodzhaspirov, 2003).

On-line education has a number of advantages and allows those categories of citizens for whom the traditional form of education is not available due to certain conditions to receive a quality education. On-line training allows building training taking into account the individual development of each student, regardless of his age, location, capabilities, etc.

For example, in the Russian education system, this technology is effectively used in working with children with disabilities. Having equal rights in receiving education, these children do not always have the opportunity to exercise their rights in full, and then all kinds of interactive tools come to their aid, replacing the possibility of traditional classroom teaching. A distance form of education for a child with disabilities makes it possible to receive a full-fledged education, adjusting to the psychophysiological characteristics of each individual child. The student has the opportunity to dose the teaching load, work at a pace convenient for him and in a flexible mode.

Among these conditions it is also possible to single out the territorial remoteness of the university, as, for example, for residents of the Far North, for whom only on-line education becomes an affordable way to receive education and retraining; the impossibility of separation from work becomes the next condition when the need for the work of a highly qualified specialist is realized in a combination of his work and parallel training at the workplace (Kramarenko & Kvashin, 2017). This technology becomes effective in the implementation of continuous higher and postgraduate education for adults, because. this

category of students already has a certain life and professional experience that allows them to combine theory with practice.

Various information and educational resources help to acquire theoretical knowledge: university webinar rooms: Zoom, Skype, Microsoft Teams, etc.; e-learning system LMS Moodle, etc., actively used in the educational process of the university. The educational platform allows students to easily receive information on the studied subjects of the curriculum. Students have access to information and reference materials (electronic textbooks, reference books, dictionaries, etc.); training materials located in online courses; all kinds of multimedia tools, etc. Real-time webinar rooms allow you to assess students' knowledge through dialogue using various Internet technologies and systems.

Reutova (2012) notes that the introduction of interactive learning technologies into the educational process of the university makes it possible to improve the training of students, which is currently important in the light of the implementation of the competency-based approach in education. The expediency of introducing this approach into the education system provides the possibility of using active forms of learning in the educational process and the possibility of combining students' theoretical knowledge with their practical needs (Ivanova et al., 2020).

The next advantage of digital education is the flexibility and plasticity of the educational system, which allows you to build the trajectory of the educational route of the student in such a way that his interests and needs correspond to his abilities in mastering knowledge. In this connection the student himself has the opportunity to plan the time required for him to complete the task; alternate hours of work and rest, etc.

Manufacturability allows the student, using the available arsenal of digital resources, to choose and organize his educational process in such a way that it meets the modern requirements of didactics and at the same time allows him to explain the necessary information to the teacher at an accessible level. Mastering the educational material by a student proceeds from simple to complex, taking into account individual characteristics.

Mobility enables the student to select the necessary information among a large flow of information and quickly respond to changing conditions of the educational environment. At the same time, in the educational process, it becomes possible to use all possible available teaching aids (telephone, computer, etc.), provided that there is a network - the Internet.

It should be noted that digital education is, on the one hand, personalized education, since this technology allows taking into account the individual characteristics and capabilities of each student, regardless of age, health status, etc., however, on the other hand, one should not forget that personalization electronic courses located on educational platforms are sometimes only formally generalized, and therefore, the student requires additional efforts and labor costs aimed at obtaining the effectiveness of this form of learning in order to master knowledge, skills and abilities (Uvarova & Frumina, 2019).

Digital technologies are convenient and effective in organizing the educational process at a university, and here, first of all, it is important to note the availability of this technology for all participants in educational relations. All that is required from an educational organization is a modern material and technical base that allows implementing the requirements of the Federal State Educational

Standard (Frumin, 2003). However, this material and technical base may not always meet modern standards of the time, which can act as an obstacle in mastering knowledge by students.

The disadvantages of using digital technology include the following ones:

- lack of full-time interaction of all participants in the educational process, which would be possible in real time. At the same time, the strength of knowledge assimilation, as well as the quality of the material being studied, as well as communication, may suffer, because no digital resources can replace the off-line learning mode, social interaction;
- ii. not all possible forms of interactive learning fit into the established normative and time frames of traditional learning, which requires great willpower and time for students to perform individual work;
- iii. not all teachers are fluent in the skills of conducting classes using interactive teaching methods;
- iv. in addition, do not forget about health problems (vision, posture, headache, etc.) that may arise as a result of excessive irregular pastime at the computer. As well as various technical problems and network failures - the Internet (Satunina, 2006).

The experience of existing practice shows that digital technologies, which are now actively used in the education system, make it possible to improve the educational process of the university, because thanks to this technology, students master the educational material within the framework of the course being studied, and the main part of the studied material is spent on independent study of the material, which increases the independence and self-organization of the student. Digital technologies meet the requirements of the Federal State Educational Standard, as they allow to focus on the individualization and differentiation of training necessary for the formation of the necessary competencies in students.

7. Conclusion

The use of digital technologies in higher education meets the modern requirements of the Federal State Educational Standard for the organization of educational and training practices implemented on the basis of the university and aimed at training a highly qualified specialist.

In the practice of organizing the educational process at the university, digital resources are currently quite actively used, which allow organizing the educational process quickly, concisely, without undue effort in such a way that it meets the requirements of didactics and ensures a high level of students' mastery of professional competencies.

The inclusion of digital resources in the organization of training at a university allows students to master an arsenal of competencies in the field of knowledge, since the combination of classroom and independent work with this approach changes qualitatively. And the widespread use of various multimedia educational materials and electronic resources (educational sites, educational platforms, etc.) allows the student to master the information he needs at a flexible and free pace.

Thus, the use of digital technologies in the educational process of the university is undoubtedly aimed at mastering professional competencies by students and is justified by the existing experience in this field of knowledge.

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