
Practice of Innovative Pedagogical Technologies in Education



¹Shahobiddin Abdurayimovich Khudayberdiev,²Zoir Makhmudovich Zufarov,³Makhsuda Abdusattarovna Tillyashaykhova,⁴Gulandom Abdujabbarovna Samigova

^{1,3,4}Senior Lecturer, UzSIAC, Department of Information Technologies.

²Associate Professor, UzSIAC, Department of Information Technologies

ABSTRACT: This article is devoted to the problem of distance education, namely the use of information technology in higher education. This paper examines modern approaches to learning based on Internet technologies, presents the main factors that determine the need for the use of distance learning technology in the education system, and shows the advantages and disadvantages of distance education as an innovative form of learning. The article is devoted to the possibilities of expanding the potential of traditional distance education through Internet technologies, describes the grounds for their use and the advantages of using them, and reveals the essential characteristics and specific features of distance learning. The author considers both positive and negative aspects of distance learning and focuses on certain issues of the criteria for evaluating the effectiveness of distance education. There are two types of factors for the use of distance learning in the education system: external and internal factors.

KEY WORDS: innovation, informatization of education, distance education technologies, quality of education, methods and forms of education.

INTRODUCTION

Today, international higher education is based on completely new principles. The main position is the so-called principle of social participation. Each consumer in the field of education now has the right to make their own requirements for the form and content of the educational process, to influence the choice of educational information and resources. In higher educational institutions, special attention is paid to the interests of students who have needs for a certain level of knowledge in a specific subject area. In other words, education is gradually becoming part of the economic sphere, a system that is designed mainly with the interests of the consumer in mind. As you know, any product enters the market only under certain conditions, which then provide it with a stable economic situation. The orientation of the modern educational system to the consumer is determined, of course, by the development of innovative and communication technologies.

Distance learning is strongly associated with innovative computer-assisted and digital learning technologies. An important means of distance learning are computer training programs, computer telecommunication networks. Computer programs for the educational process are any software that is specially developed or adapted for use in teaching and for which methods of application in the educational process have been developed.

The global goals of informatization of education are the training of teachers who are ready and able to apply new information technologies in the process of teaching and managing education, who are actively involved in the process of informatization of education [1].

Innovations, or innovations, are characteristic of any professional activity of a person and therefore naturally become the subject of study, analysis and implementation. Innovations do not arise by themselves, they are the result of scientific research, advanced pedagogical experience of individual teachers and entire teams.

A significant advantage is significantly lower training costs, any distance learning is about 60% cheaper than the corresponding training using traditional methods [2]. It is important to note that the quality of educational services at the same time increases dramatically. This is because there is increased competition between both faculty and universities. This fierce competition ensures a constant increase in the quality of training. The student has the opportunity to choose the best programs around the world. It is also important to note another advantage of distance education - it is a flexible work schedule for both teachers and students. The student and the teacher can use the convenient time to study.

The introduction of distance learning allows students to independently master the material, develops the ability to express thoughts in writing, ask questions, improves their level of knowledge, develops intellectual abilities. E-learning materials are easily updated, thus achieving a dynamic course. On the other hand, it makes it possible to save on publishing educational materials in the form of books.

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MAIN PART

The concept of "innovation" means innovation, novelty, change; innovation as a means and process involves the introduction of something new. In relation to the pedagogical process in professional education, innovation means the introduction of new things in the goals, content, methods and forms of teaching, the organization of joint activities of teachers and students [3].

The results of the conducted research show that in recent decades, a new problem of the development of the education system has emerged. Knowledge ages every 3-5 years, and technological knowledge ages every 2-3 years. It will take a little more time and it will be 1.5-2 years, and the required amount of knowledge for graduates of educational institutions doubles every 3-4 years. If educational technologies are not changed, the quality of training of specialists will objectively lag behind the requirements of the labor market. Students' acquisition of knowledge with the help of information and communication technologies, according to the lowest estimates, is 40-60% faster, or more, per unit of time, than with conventional technologies (more knowledge is given in the same period).

One of the types of innovations in the organization of vocational education is the introduction of distance learning.

In recent decades, distance education technologies in the world have received intensive development. The era of informatization of the educational process has come. The current phase of its development can be characterized as telecommunications. This is the phase of communication, the phase of information and knowledge transfer. Training and work today are synonymous: professional knowledge ages very quickly, so it is necessary to constantly improve it – this is open education! The developing modern telecommunications infrastructure makes it possible to create systems of continuous self-learning, universal information exchange, regardless of time and space zones. Distance learning has entered the XXI century as the most effective system of training and continuous maintenance of a high qualification level of specialists.

There are two types of factors for the use of distance learning in the education system: external and internal factors.

External factors. In the information society, a high degree of education of its members becomes a priority. Only highly educated people are able to effectively use information as a powerful productive resource. The effect of the "information explosion" requires each member of society to constantly update their knowledge. A person does not have enough "education for life", he needs "education for life". Learning objectively becomes continuous. The nature of the learning process itself is also changing significantly.

It is also necessary to note the importance of the introduction of information and communication technologies (ICTs) in the global aspect:

first, ICTs create new opportunities for education and provide an opportunity to reach a wide range of people and meet the needs of the individual in the pursuit of knowledge, professional development in the chosen field and professional activity;
Secondly, they eliminate barriers to access to the necessary information and reduce the costs of information exchange;
Third, they help attract investment to the country and promote advanced technologies in production and management;
Fourth, ICTs increase the efficiency of the economy and significantly accelerate the pace of globalization, etc.

All this makes the further introduction of ICT a necessary condition for the successful introduction of distance learning technologies in Uzbekistan.

Internal factors. Modern requirements dictated by the reform of the economy and society have led to a significant increase in the resource intensity of the educational process. The use of mainly extensive methods of providing educational services and the existing approach to organizing systems of advanced training and retraining of personnel, leads to a significant restriction on the growth of the volume of the trained contingent, reduces the availability and effectiveness of educational services and, as a result, narrows the range of their potential opportunities.

In a number of educational institutions and professional development centers, there are questions related to the lack of highly qualified specialists and high pedagogical skills.

To reduce the resource intensity of the educational process, to ensure greater accessibility of training in educational institutions, training technologies should become as effective as possible, that is, providing a high degree of economy of the educational process with a higher quality of training. It is necessary to widely use innovative teaching methods that intensify the learning process. All this can be achieved by the widespread introduction of modern pedagogical and information and communication technologies into the educational process.

RESULTS AND DISCUSSIONS

Guided by the above, we can identify several main reasons for the creation and implementation of distance learning technology in the education system of the Republic of Uzbekistan:

1. Professional development and retraining of personnel. The higher education system of Uzbekistan includes 58 higher education institutions, including 16 universities, 12 of which were established during the first two years of independent development of Uzbekistan and 42 institutes with a student population of 164 thousand people. Currently, the contingent of teachers of higher educational institutions of the Republic is about 18.5 thousand teachers. At the beginning of the 2019/2020 academic year, the number of teachers of professional colleges reached 17.5 thousand people. In the 2019/2020 academic year,

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138.1 thousand students were enrolled in higher education institutions, compared to the corresponding period last year, their number increased by 23.8 thousand people, which amounted to 114.5 thousand students, or it increased by 20.6% [4]. According to forecast calculations, in 2021, with the introduction of new and reconstructed educational institutions, the need for pedagogical and engineering-pedagogical personnel in the Republic will amount to more than 80 thousand people. Teachers of higher educational institutions will continue to be involved in teaching activities, especially in academic colleges and lyceums. In accordance with the Law "On Education" adopted by the Legislative Chamber on May 19, 2020, every teacher must be trained in the advanced training system once every three years [5]. This means that every year about 30 thousand people should be trained in various courses of advanced training and retraining. However, at present, the existing system of advanced training and retraining is not able to meet this need. The creation and implementation of distance learning systems in such situations will contribute to solving this problem by reducing the time of their on-the-job training.

2. Improving the quality of education. This issue is dictated by the level and pace of development of international education systems and the National Training Program. Improving the quality of education is achieved by:

- Opportunities to attract highly qualified scientific and pedagogical personnel and specialists to the creation and teaching of courses;
- High intellectual potential of the information environment, formed by both the variety of sources used and the high degree of relevance of the information contained in them;
- Application of modern pedagogical technologies based on the advanced achievements of science and technology;
- Opportunities for regular individual communication between the teacher and the student;
- Regular monitoring and self-monitoring of learning material assimilation;
- A high level of independence in the cognitive activity of students;
- The use of a large number of different tasks, including research tasks, in training;
- Use of the potential of collective creativity of students.

3. Wide provision of educational services for persons with disabilities (disabled people) on social adaptation. There are people with disabilities in all countries of the world and in every group of society. Their number in the world is significant and continues to grow. We cannot ignore the fact that there are people in society for whom the future is from birth unpromising. Of course, the causes and consequences of disability vary from country to country. These differences are due to different socio-economic conditions and different measures taken by States to ensure the well-being of their citizens.

According to the official data of the Society of Disabled People, more than 700 thousand disabled people live in our Republic, while more than 150 thousand live in the city of Tashkent, including 100 thousand children with disabilities under the age of 16, and therefore 42.6 thousand of them can potentially receive educational services [6]. Of these, those who have a higher education and a job are the most successful at adapting. Thus, thanks to education and rehabilitation, disabled people can become more active and useful for the life of the state and society. After all, higher education in personal terms gives freedom of life choices and goals, spiritual and material independence, gives vitality and harmonizes existence, which is especially important for young people with disabilities. Higher education transforms disabled people from passive consumers of social services into active, creative and qualified citizens. To solve the above problem, the most optimal is the use of distance learning technology.

4. Comfort of learning and teaching. It is achieved due to the ability of both the student and the teacher to conduct the learning process at a convenient time, in a convenient place and pace. An unregulated period of time for the development of the course provides students with the opportunity to master the course, both in less and in more time than a strictly regulated traditional course. For the teacher, the share of the classroom-learning load is reduced.

5. Creating a competitive environment in education. The introduction of a distance learning system in education will create a competitive environment between traditional and distance education, which will certainly stimulate the improvement of the quality of education, as it will strive to increase its competitiveness in the education system.

CONCLUSION

From this we can conclude that the new, "informational" stage of the development of the world education system is objective and irreversible. The use of information technologies in teaching that correspond to the world level is the main and effective way to develop the domestic education system. Distance education provides students with access to non-traditional sources of information, increases the efficiency of independent work, provides completely new opportunities for creativity, acquisition and consolidation of various professional skills, and allows teachers to implement fundamentally new forms and methods of teaching using conceptual and mathematical modeling of phenomena and processes. At this stage of the development of distance technologies, our task is to organize the educational process so that the new forms of education give at least the same result in terms of quality as the traditional ones. In addition, there are many questions related to the methods of measuring the effectiveness of distance learning. But be that as it may, a huge "plus" of distance technologies is that they allow anyone to learn continuously – all their life.

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