INFORMATION TECHNOLOGIES IN HIGHER EDUCATION OF UZBEKISTAN
[1] Alimatova N., [2]Abdullakhanova G.

[1] Alimatova Nargis, PhD, Associate Professor of the
Tashkent state university of economics, Tashkent, Uzbekistan
nargis221968@gmail.com

[2] Abdullakhanova Gulbakhor, PhD, Associate Professor of the
Tashkent state university of economics, Tashkent, Uzbekistan

Distance learning is a type of education, which appeared in current information century and began to be used widely in the universities of the developed countries. Information and communication technologies are also widely used in higher education. This article details the history of distance learning, the benefits, the differences between full-time and part-time forms of study, and the technology used in it. It is concluded that in order to apply distance learning in Uzbekistan as a separate form of education, it is necessary to make changes to laws and state educational standards and to use them as innovative organizers in higher education.

Key words: education, distance learning, technologies of distance learning, part-time education.

Literature review: Distance-learning is one of the most recent significant branches of education, broadening its capabilities. The accessibility and comparatively low prices are to be considered as advantages and owing to the internet globalization process. Although, results of this type of education, depending on various factors and having several disadvantages, is questionable.

Methods: The unit of logic with history, deduction, analysis and synthesis, from abstract to concrete.

Organization of educational process, curricula and science qualitative renewal of the educational process with the introduction of modern forms of training and information and communication technologies, improvement of the programs of higher and secondary special education of the Republic of Uzbekistan due to the Decree of the President of the Republic of Uzbekistan dated July 11, 2019 N UP-5763 "On measures to reform the management in the field of higher and secondary special education" in accordance with international practice of the introduction of new pedagogical technologies and teaching methods as one of the tasks of the Ministry of Higher and Secondary Special Education of the Republic of Uzbekistan[1].

Until recently, distance education, part-time education, open-ended training and others were virtually indistinguishable. However, distance learning has now proven to be significant and in demand. The future of distance learning and its prospects for lifelong learning are recognized by education professionals. But so far, the question remains: Is distance education a form of education or technology? Correct understanding of this question is important in determining the tactics and strategies for implementing distance education.

The history of distance learning spans almost two centuries. With the emergence of a permanent, regular postal service in Europe at the end of the eighteenth century, "correspondent education" has emerged. Students receive study material in the mail,

contact the teacher by letter, and pass the exams in the form of a trustee or a scholarly paper. In Russia, this method appeared in the late 19th century.

The early 20th century is characterized by technological advancements, telegraphy and the availability of phones. However, there is no concrete data on their use in the educational process. At the same time, the "correspondence education" was still in progress. Many universities around the world still use it.

In 1969 the first distance learning university in the world was opened in the UK and it was called the UK Open University. It was called because of the low tuition fees and the absence of need for regular training.

Universities with distance learning programs are: University of South Africa (1946), FemUniversitat in Hagen (Germany, 1974), National Technological University (USA, 1984), INTEC College (South Africa), Spanish National University for Distance Education, UK Open University Open Business School, Australian Regional Information Network[16].

In the late 1980s personal computers provided new hope for simplification and automation of education. Computer training programs have come up with various games on early computers.

In 1988 the Soviet-American project "School e-mail" was implemented.

In the 21st century, the advancement of computers and the Internet has led to the expansion of distance learning. The Internet is a step ahead of radio and television. There was an opportunity to establish a relationship between both the teacher and the student, at long distances. With the spread of the "rapid Internet", online seminars began to be used for educational purposes.

At present, researchers and practitioners give different definitions of distance learning.

Distance learning is a synthetic, integrated, humanistic form of learning based on the use of traditional and new information technologies and techniques used to deliver learning material, study it independently, and facilitate dialogue between teachers and students. At the same time, this form of education is indifferent to the location in the space and time of the teacher and pupil and to a particular educational institution [2].

Distance learning is a form of education, which is implemented through special Internet technologies and other means of interaction, in which the teacher and student interact remotely and reflects all elements of the learning process (goals, content, methods, organizational forms, learning tools). [3, P.17].

Distance learning is a technology of distance learning where teachers and students are physically in different places. Previously, distance learning was part-time. It is now a teaching tool that uses case studies, TV and network technologies [4].

It is clear from the above definitions that there is no uniform understanding of the nature of distance learning.

The technologies of distance learning are the following technologies. SD-technology - educational materials are provided to students in printed and multimedia (SD-ROMs, DVDs). This technology is often used in conjunction with full-time training (with lectures, seminars, trainings and supervision). Part of the communication with the teacher (for example, consultations), as well as access to information from the electronic library and university databases is implemented through the Internet.

Networking technology is the use of computer training programs and electronic textbooks posted on the university's Internet server. It is possible to communicate with the

teacher through the Internet, to pass intermediate and final control. A number of universities conduct lectures and seminars in real time. Exams are held in centers close to the student's place of residence. Network education is organized autonomously, as well as through the creation of an information and educational environment.

Television and satellite technology is similar to network technology in terms of organization, however, teacher and student communication (lectures and seminars) is conducted through satellite communication channels.

In addition to these technologies, hybrid models are now being used. These models incorporate cycles (sessions) of full-time and distance learning. A hybrid model is the combination of case technology of network technology with full-time training.

Modern distance learning envisages the use of the following key elements: media environment (mail, television, radio, information and communication networks), methods related to the technical environment of information exchange.

Distance learning enables:

1. Reduction of training costs (arena building, reduced travel expenses for teachers and students).

2. Training a large number of people;

3. Improving the quality of education through the use of modern tools and the use of large libraries;

4. Creating a unified learning environment (especially relevant for corporate training).

5. Flexibility - Students can study at any time and place convenient to them.

6. Remote Impact - Learners are not limited to distance and can study regardless of place of residence.

The training forms are very diverse and include:

Chat training - classes using chat technologies. They are synchronized, meaning that each participant joins the chat simultaneously. Many distance learning schools have their own chat schools. There will be activities of distance learning for teachers and students through chat rooms.

Web classes - forms of remote trainings, conferences, seminars, labs, practical work and other training sessions using the opportunities of the Internet and telecommunications facilities.

Web classes are used by users to post specific posts on one of the sites where a specific topic or problem has been set, i.e. special education web forums.

Web classes are distinguished by the long-term use of chat forums and the ability of teachers and students to work asynchronously.

The teleconference is usually based on mailing lists. Educational conferences are typical of educational tasks' usage. There are also forms of distance learning based on the mailing of educational materials to the regions.

The basis of this system of learning lies in the so-called "natural learning process" method of teaching. Distance learning is a democratic, simple and free system of education. It is now widely used by the European population for further information.

Being a TV presenter. Currently, there are various ways of distance learning. For example, a similar experiment was conducted in a Moscow school. A child with a disability participates in all the classroom-based processes using a computer robot. The teacher asks

![inScience logo](through time and space)

International Conference "Science of the 21st century: society and digitalization"
Conference Proceedings. Scope Academic House, January 30, 2021, Sheffield, UK.

him questions and the boy answers them. A teacher sees a student from the monitors of the robot. If the experiment succeeds, it will be possible to apply it throughout Russia.

Forms of distance learning programs include:

1. "Natural" distance universities.

For example, there are not many universities in the United States that offer bachelor's or master's degrees. They must be accredited.

2. Providers of corporate training or refresher courses.

Such organizations provide programs, trainings that lead to certification or professional development. Usually, these programs are not accredited and are formed at the discretion of their clients.

3. Traditional universities offering online education.

Many traditional universities and colleges have recently started to offer their programs online. So, they expanded the range of educational programs offered. Unfortunately, there are not many universities and colleges offering full online versions of their educational programs.

In foreign literature, distance learning is interpreted as a separate form. Distance learning cannot be a fully autonomous system as a new form of education. The distance learning objectives and content are constructed on the same basis as the content of the full-time study. The provision of learning material and the interaction between the teacher and the student are different. The basic didactic principles of distance learning are the same as any other education, but the organization of distance learning is somewhat different. They will be provided with special features of the Internet environment for distance learning and its services (chats, forums, mail, video-conferencing). Specific features of distance learning are its modular system, changing role of the teacher (division of functions of course developers, tutors, etc.), distance distribution of participants of educational process, virtual co-operation of education, self-control over teacher control, modern special technology and the use of educational tools and more.

The main areas of application of distance learning are:

a) professional development of pedagogical staff in certain specialties;

b) preparing students for external examinations in certain subjects;

c) preparing students for admission to higher education institutions;

d) preparation of students for special professions;

e) additional interest-based training;

f) retraining;

g) professional training.

Comparison of distance education with full-time and part-time forms of education can be considered as a new stage of development of both full-time and part-time training, using information technologies based on the use of personal computers, video and audio equipment, space technology.

The difference of distance learning and part-time education is that it is not autonomous but through regular communication with the teacher (telephone and Internet consultations, online lectures and seminars). At the same time, the difference between distance learning and part-time education can include:

a) ongoing contact with the teacher, prompt discussion of emerging questions through telecommunications;

b) Opportunity to organize discussions during the course, collaborate on projects, and organize other types of group work (group members may be students living or away from each other). In this case, communication with the teacher is carried out through telecommunications;

c) distribution of theoretical materials to students in printed or e-learning materials. This allows the university to partially reduce or cancel attendance at sessions.

The difference between distance learning and full-time education is that most of the theoretical material is mastered using the Internet, not in the classroom. Thus, student activities become organized and independent. The main differences between full-time and distance learning include:

a) study at their place of residence or employment, i.e. the distribution of the learning process;

b) flexibility of the learning process, its connection to several checkpoints (exams, on-line sessions with the teacher), group work, laboratory work, or complete freedom;

c) communication with the teacher through telecommunications.

At the same time, distance learning differs from traditional education to the creation of a new learning environment, in which a student knows what knowledge, skills and abilities he or she needs. Another feature of distance learning is the opportunity to gain the necessary knowledge through the use of advanced information resources (knowledge and databases, computers, including multimedia, teaching and control systems, video and audio recordings, electronic libraries, as well as traditional textbooks and teaching aids).

Differences in distance learning from traditional teaching include the psychological and pedagogical problems that a number of teachers and students must solve:

a) difficulties in establishing interpersonal communication between participants in the learning process;

b) difficulties in forming small groups that can work effectively in the learning and collaboration process;

c) difficulties in identifying individual learning features and learning styles of each student's perception of learning material in order to effectively organize the learning process;

d) correspondence of a teacher's behavior and character according to distance learning and pedagogical technology.

Thus, distance learning is an integral part of full-time and part-time education, and can act as a form of independent learning. Considering distance education as a separate form of education is associated with a number of problems (mainly related to legislation). A number of universities use distance learning as an auxiliary tool, and some use it as an alternative to traditional forms of teaching.

In Uzbekistan, according to state educational standards, teaching hours of teachers and students, taught in each form of education, are established. If distance learning is used as a separate form of education, changes in laws and state educational standards will be necessary. It is important to clarify the hours of study for each teacher and student involved in distance learning.

Thus, distance learning can be viewed as an independent form of education in the 21st century and an innovative organizer of full-time and part-time education. We think that it can be used in the system of national higher education as this innovative educational organizer.

References:

1. Decree of the President of the Republic of Uzbekistan dated July 11, 2019 N UP-5763 "On measures to reform the management in the field of higher and secondary special education".

2. Andreev A.A. Introduction to distance learning: a teaching tool. –M.: VU, 1997.- 45s.

3. Ahayan A.A. Virtual pedagogical university. Theory of becoming.. - SPb.: Korifey, 2001. - 170 pp.

4. Zaishenko T.P. The basis of distance learning: theoretical-practical principles: - SPb: RGPU publisher named after A.I. Herzena, 2004. - 167 pp.

5. Zaishenko T.P. Invariant Organizational-Didactic System Distantionic Obuchenia: Monograph. - SPb.: Asterion, 2004. - 188 p.

6. Ivanchenko D.A. System Analysis of distance learning: Monograph. - Soyuz, 2005. - 192 pp.

7. Malitikov E. M. Actual problems of the development of distance education in the Russian Federation and the CIS countries/M. Malikov, M. P. Karpenko, V. P. Kolmogorov // Pravo i obrazovanie. - 2000. - No. 1 (2). - pp. 42-54.

8. Polat E.S. Pedagogical technology of distance learning S. Polat, M.. V. Moiseeva, A.. E. Petrov; edited by E. S. Polat. - M .: Academy, 2006.

9. Theory and practice of distance learning / edited by E. S. Polat. - M.: Academy, 2004.

10. Khusyainov T.M. The history of the development and spread of distance education // Pedagogics and education. - 2014. - No. 4 - pp. 30-41.

11. Khusyainov T.M. Key Features of Mass Open Online Courses (MEP) as an Educational Technology // Nauka. Mysl - 2015. - No. 2. - S. 21-29.

12. Khutorskoy A.V. Distance learning and its technologies // Computer. - 2002. - No. 36. - p. 26-30.

13. Khutorskoy A.V. Scientific and practical prerequisites for distance education // Otkritoe obrazovanie. - 2001. - No. 2. - pp. 30-35.

14. Khutorskoy A.V. Ways of developing distance education in Russian schools // All-Russian scientific conference Relam. Thesis report. - M. 2000.

15. Advantages and disadvantages of distance learning // Education: path to success. - Ufa 2010.

16. https://ru.wikipedia.org/wiki/