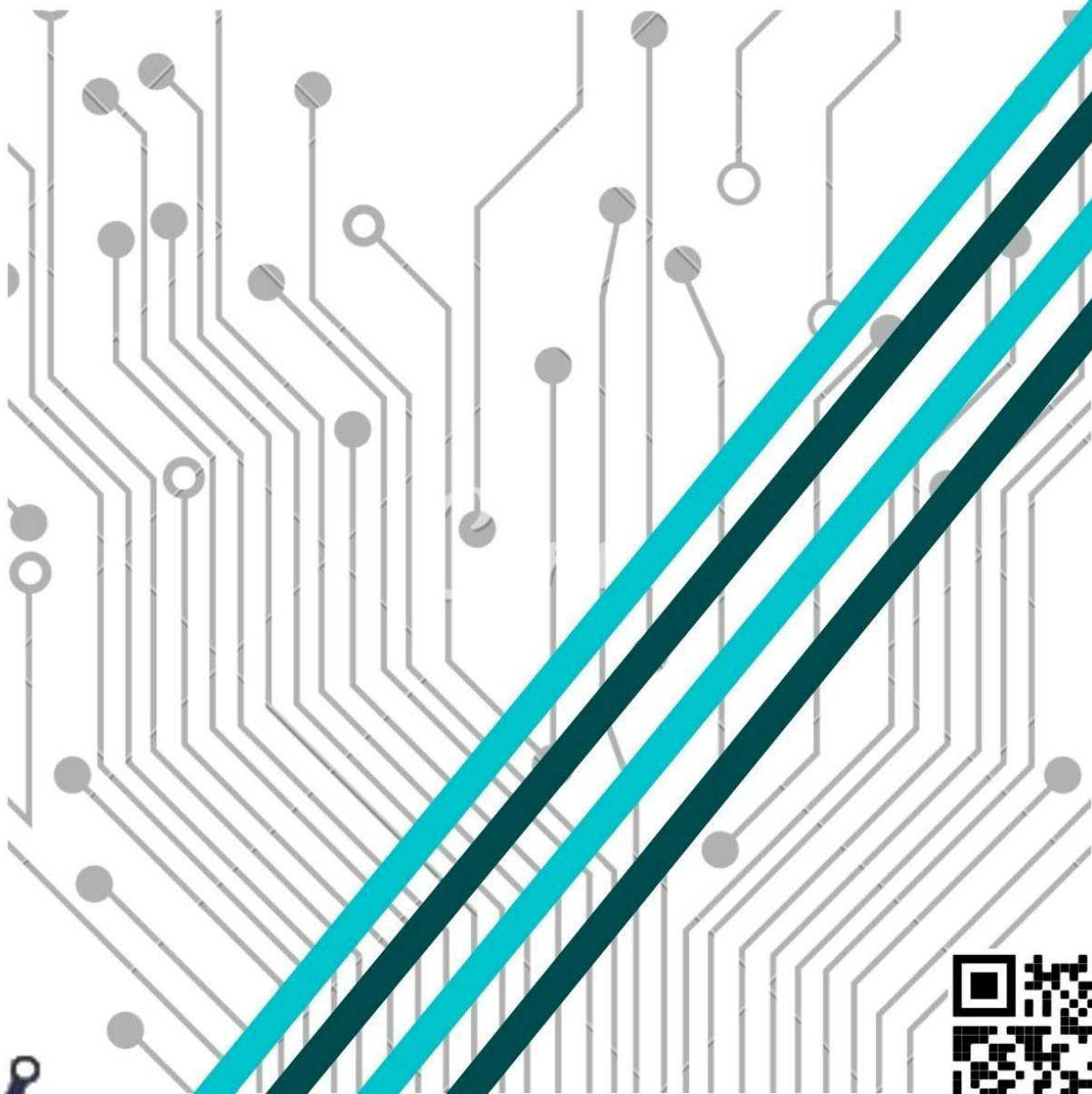


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TECHNOLOGIES FOR ORGANIZING ELECTRONIC EDUCATION BASED ON INFORMATION TECHNOLOGIES

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Abstract. This article examines the main positive directions of the development of electronic education, summarizes the knowledge, skills and abilities that are formed in the process of introducing electronic education into the educational system, and describes the educational tools used in electronic education. It is shown that electronic education at the university allows not only training and supervision of students, but also analysis of acquired knowledge in accordance with the results of their activities, the importance of education in continuous education and the need for continuous learning are emphasized. The article will be of interest to those involved in the introduction, development and improvement of e-learning systems.

Key words: electronic education, online education, distance educational technologies, continuous education, computer practical.

Electronic education, as a self-contained educational technology, does not cease to be an innovative means of education in connection with constant development of information technology. As a result, the methodology of this type of training is constantly changing and improving. At the same time, e-learning is a relatively advanced and educational system that can easily identify specialties and disciplines that are used by the ego. E-learning, as it is often called e-learning, is similar to the terminology of the world, it has a sufficiently comprehensive concept, inclusive and remote learning, learning through the Internet, the use of electronic means of learning and the quality of pedagogical technological tools. In the perspective of the development of modern education, there is an obvious merger of the pedagogical process with e-learning due to the incessant penetration of information technology, as well as the conversion of the development of hardware and software components of microprocessor technology [1-4].

E-learning at the present stage can be considered both as an independent form of education and as part of the general pedagogical process of teaching and educating students. The possibilities of this type of activity will be considered in the article with tselyu will display the positive usefulness of e-learning. As with any process, there will always be positive accompanying arguments for the development of the phenomenon, as well as negative side problems. The change in the concept of education in connection with the rapid development of information technology and a number of accompanying factors of rethinking the classical

paradigms of education has influenced the introduction of innovative teaching methods, including e-learning. I list the basic positive aspects of the development of electronic training, which can be attributed to:

- an individual educational trajectory, as the basis of knowledge, not burdensome for the student, which can be represented by aphorisms: convenient time, convenient place, convenient speed of studying disciplines;

- increased motivation for learning, as participants in e-learning, as a rule, have a meaningful goal-setting of their activities;

- independence of the student's actions, as the basis for performing various tasks, constantly expanding within the framework of the increasing volume of information accumulation of knowledge;

- providing conditions for self-realization and self-determination of the personality of the student and trainee;

- continuous formation of information and various professional competencies, since any field of study is implemented using information technologies;

- an activity that, in the context of the introduction of e-learning, is creativity, both for teachers and students.

It should be said separately about the increased level of education when using e-learning, the very possibility of such implementation of training speaks of the existing knowledge base of the student. That is, the development of a student's competencies is based on the personal-semantic perception of the

material as the highest stage of development of abilities with the existing motivation, the ability to independently perform reflection, analyze one's activities, engage in evaluative and verification activities, create social, professional and spiritual components of one's personality [5-8]. Speaking about the need to use e-learning at the present stage, it is necessary to highlight the skills and abilities that are formed when introducing this form of education into the education system. These include:

- the ability to organize a personal learning space to manage their cognitive activities;
- the ability to form new knowledge independently;
- development of the ability to solve problems and problems in a variety of ways;
- expanding opportunities for the use of innovative methods in their activities;
- development of research abilities, - formation of project thinking;
- development of interaction abilities in the educational space, in the professional community, in local and global networks;
- formation of interconnected directions between the studied disciplines and fields of knowledge;
- expanding the ability to reflect and analyze their activities. For a complete consideration of the issue, it is necessary to single out the types and forms of e-learning, given that it is difficult to name the types of training sessions in which e-learning cannot be used. These educational technology tools include:
 - lecture-visualization;
 - lesson - conference;
 - use of computer training programs, electronic textbooks;
 - preparation and defense of abstracts;
 - design technology;
 - lesson with elements of a computer laboratory workshop;
 - laboratory works;
 - testing;
 - development of practical skills (skills);
 - consultation;
 - test task;
 - filling in an electronic workbook;
 - passing an exam, etc.

Moreover, each separate method of e-learning or knowledge control can be implemented both online and offline.

E-learning involves the diverse use of means for its implementation, which include:

- websites and portals of educational institutions;
- e-library resources capable of providing many opportunities for e-learning based on e-library systems;
- distance learning sites that exist separately from "classical" educational institutions, - non-network computer workshop,
- electronic textbooks distributed by various information carriers;
- various test programs for control and self-control of knowledge and skills;
- direct training through webinars, moreover, they can also be used online and offline, etc.

Currently, there are network portals specializing in network training, these are training and retraining courses, advanced training, competitions of various sizes. This takes place to a greater extent among teachers, since, due to the constant improvement of information technology, it is necessary to continuously improve their skills not only for those who are taught, but also for those who teach. The practice of e-learning is quite extensive, and, recently, the focus of learning has shifted to video content [9-12].

These are all kinds of video lectures, video conferences, video broadcasts of training and monitoring events. So, as a generalization of the topic, we note that the e-learning system is constantly expanding and improving. New opportunities are constantly emerging when using E-learning. The e-learning system has a great future due to the rapid and continuous improvement of information technology. The expansion of the network capabilities of the Internet allows the use of e-learning in almost any training session in many disciplines.

New educational standards today are focused on "competencies in updating competencies", in other words, on continuous professional education. Gone are the days when graduates received "education for life", at the present stage of development of society, the concept of "lifelong learning" becomes relevant. A constantly changing society requires a person to continuously acquire new skills. He is obliged not only to fulfill his functional duties according to certain schemes and rules, but also to have the ability to model probabilistic situations, take

responsibility for their resolution in the conditions of the existence of many decisions and readiness to build adequate intersubjective relations. Employers are primarily looking for specialists who, on the basis of existing knowledge and experience, improve their skills and abilities throughout their lives. Such high requirements for specialists are justified by the fact that every year professional activity becomes more and more intellectual and multifaceted, requiring non-standard thinking [13-17].

The implementation of the idea of continuous education is quite difficult, since it requires not only any organizational efforts on the part of educational institutions, but, above all, the internal permanent readiness of the person himself for learning. In other words, the subject of education itself must realize the need to increase the level of professional knowledge and acquire new competencies. Continuous education should become his inner need, because it is simply impossible without his active and conscious participation. The mechanism that ensures the continuity of education is the development of reflection and methods of self-education, mastering which you can "learn" throughout your conscious life. In this regard, lifelong education can be viewed as the constant creative development of each person throughout life, the upbringing and self-education of his personality, the formation of a desire for continuous improvement through the realization of his own needs.

To implement the concept of lifelong learning, flexible and innovative teaching methods are needed that improve the quality of education. The most obvious way to achieve this goal is to use information and communication technologies, which, thanks to scientific and technological progress, are being actively introduced into the educational process. In our opinion, the acquisition of competencies necessary for future professional activity should take place along an individual learning path using new information technologies. ICTs open up unlimited possibilities for lifelong learning by creating different learning scenarios.

In the materials of the European Commission in the field of education, the idea is that education in the future will not be tied to the classroom and textbooks, it will turn into an interactive and positive environment based on innovative ICT technologies. As a result,

education built on innovative pedagogical models will become open and accessible to different categories of people who want to learn throughout their lives. The most suitable technology for the needs of continuing education may be e-learning. Its purpose is to develop the skill of independent planning and organization of their activities among students, orienting them towards the final result.

E-learning at the university allows not only to train students and exercise control, but also, in accordance with the results of their activities, to analyze the knowledge gained. If knowledge is insufficient, EE allows you to create conditions for additional work, and thus, the learning process is adapted to each student and the principle of individualization of learning is implemented. In this case, students' independence is also stimulated, which involves the formation of self-regulation skills that allow them to evaluate the results of their actions and, if necessary, correct them. This independence will eventually form in students a psychological attitude towards continuous education.

In connection with the shift of the educational process towards humanization and humanization, authoritarian teaching methods are changing to personally-oriented ones, where the student is at the center of the learning process. The main function of the teacher is to provide an individual approach to learning. EE helps to build individual trajectories of students, when each student moves forward at his own pace, gradually mastering the educational material and acquiring the necessary skills in accordance with the federal state educational standard.

E-learning contributes to the development of student learning autonomy. Very often, academic autonomy is equated by researchers with the ability to learn, with a person's need for self-education, which is especially valuable in the context of lifelong learning. Students become more active, show interest in the subject and teaching methods, learn to critically evaluate their skills and abilities by participating in group discussions.

For successful professional activity in the future, students must learn to reflect, analyzing the work done and taking responsibility for the decisions made. E-learning creates ideal conditions for introspection and self-assessment, which helps to launch the reflection mechanism and form the motivation for continuous education.

E-learning is dominated by an activity approach, which implies active involvement in learning. In the process of such training, students are involved in cognitive activities for the assimilation and consolidation of educational material. Visualization and interactivity of multimedia elements of EO allows you to assimilate it much faster and more efficiently. The mode of active self-learning, due to the high degree of individualization, significantly increases the level of knowledge of weak students, thereby smoothing the traditional gap between weak and strong students.

With e-learning, the teacher's activity is reoriented - the share of organizational activity increases, but the informative function decreases. The transfer of "ready-made" knowledge ceases to be relevant, the organization and coordination of independent and research activities of students comes to the fore. It is these activities that will

form creativity, teamwork, tolerance, analytical skills and the ability to self-learn. Thus, a modern university teacher should be focused not only on replenishing students' knowledge, but also on revealing creative and intellectual abilities in students' independent activities, on developing students' critical thinking skills.

Lifelong learning has become a significant phenomenon in pedagogy and the educational process, emphasizing the value of education and the need to constantly learn. Willingness and desire to learn throughout life is necessary for successful adaptation in modern society, which requires the continuous development of professional and personal qualities of a person. E-learning contributes to the formation of a developing personality, prepared for universal professional activity, and initiates the pursuit of continuing education.

REFERENCES

1. Краснова Т.И. Возможности электронного обучения в непрерывном образовании.- Казань: Молодой ученый, 2015. –С.633-636.
2. Рыбакина, Н. А. Интеграция идей компетентностного подхода и теории контекстного обучения как условие становления и развития непрерывного образования // Вестник Воронежского государственного технического университета. — 2014. — Т. 10 № 3–2. с. 208–211.
3. Xonqulov U.X. Description of methodical system of teaching the line of stochastics elements of mathematics by using computer technologies. Eastern European Scientific Journal.№ 6.- Dusseldorf, Germany, 2016.-pp. 200-206.
4. Maxsudov V.G. The use of distance learning technologies in the creation of e-learning courses in higher education by professors and teachers of higher education institutions. Study guide. – Tashkent: UzSNMU, 2021. – pp. 256.
5. Maxsudov V.G. Types of physical education and the technologies of organization of matters in the modern education system. – Portugal: Integration of science, education and practice. scientific-methodical journal., 2022., №4,-pp.29-34.
6. Maxsudov V.G. Technology of organization of modern lecture classes in higher education institutions. England: Modern views and research–2021. 160-166 pp.
7. Maxsudov V.G. Technology of lecture organization in modern education.- Washington, USA, Colletions of scientific works, Innovation in the modern education system.2021. – Pp.160-166.
8. Maxsudov V.G. Improving the methodology of teaching physics-Mechanical Vibrations| in higher education. Monograph. 2021. 144 pp.
9. Maxsudov V.G. The use of distance learning technologies in the creation of e-learning courses in higher education by professors and teachers of higher education institutions. Study guide. – Tashkent. 2021. -264 pp.
10. Тухтаходжаева Ф.Ш. Махсудов В.Г., Эрметов Э.Я. Значение информационных систем в здравоохранении. Журнал медицина и инновации (Jurnal of Medecine and innovations). 2022/2/25. С. 177-181
11. Maxsudov Valijon Gafurjonovich, Ermetov Erkinbay Yaxshibayevich. TIBBIY XIZMAT KO'RSATISHDA AXBOROT TIZIMINING AHAMIYATI. 2023/1/5
12. N.U. Abdullayeva V.G. Maxsudov, E.Ya. Ermetov, K.D. Latipova. Problem solving methodology in Physics. CAJECS. Cental Asian journal of education and computer sciences. 2023/2. -P. 6-14