

INNOVATIONS USED IN DISTANCE EDUCATION TECHNOLOGIES

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Abstract

The article provides information about distance education and its importance, teacher-student relationship in distance education, case technologies, television technologies.

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Computer tools as a technological basis of modern education help to form new ways of organizing and conducting the educational process. At the same time, an individual, personal-activity approach is implemented, which includes querying the system, receiving student performance results, and correcting errors. The introduction of computer technologies allows modeling the learning environment for independent work at an individual pace and using access rights to information resources - for self-training and reflection.

Distance education (MT) is a type of education that uses information technology, as the teacher and student are separated by distance or time. The advantage of the distance education system is the personal and creative activity of students. The integration of information and pedagogical technologies ensures the interactive interaction of educational subjects and the effectiveness of the educational process, in which the exchange of information is actively established [8].

1. Today, there are ten types of distance learning technologies with innovative elements:
2. Case (portfolio) technology is a technology based on collecting sets of educational materials on compact discs and sending them to students for independent study.
3. Case (training) technology — a technology based on the application of case study methods.
4. Television technology is a type of distance learning technology that provides students with teaching materials and regular lectures by teachers on certain courses and teaching areas. technology based on the use of television for organizing.
5. Internet (internet) technology - technology based on the use of the Internet
6. Local network technology - technology based on the use of local networks for teaching and providing students with educational materials.
7. Information-satellite network technology - a technology that implements television education, as well as filling and updating information in local networks through satellite communication channels.
8. Study-time technology is a technology based on the organization of students into educational centers in conditions where the necessary technical, material or other opportunities are insufficient in the educational institution.

9. Attestation-time technology - a technology based on passing students through attestation (state exams or defense of graduation qualifications) by a traveling attestation commission.
10. Correspondence technology - this technology is based on assigning a personal teacher to each student and conducting the educational process through correspondence.
11. Radio-based technology is a technology based on teaching students via radio.

The first five types of education are most in demand; the rest are used less often due to the fragility of technological methods and technical means. Scientific and technical development is related to the informatization of the spheres of society and the education of a critically thinking person who constantly improves his cultural and professional level. To achieve this goal, in addition to traditional teaching materials, public open online courses (OOOK) are used, which often offer interactive user forums as a supplement and are used to support teacher and student communities (see Figure 3).

The form of distance education ensures the development of the student's creative and research abilities, regardless of social status, age, gender, and place of residence, it allows to advance to any level of education. The advantage of using information technologies in education: the ability to transfer information of any size and type; interactivity (quick communication); organization of electronic conferences; the ability to work with educational materials at a convenient time [6; 9].

There are five types of education based on distance, individualization and productivity:

- 1) "university - Internet" - solves the problems of traditional education.
- 2) "university - Internet - university" - supplements full-time education with more intensive electronic forms.
- 3) "student - Internet - teacher" - Distance education partially replaces full-time education: distance courses, seminars, consultations.
- 4) "student - Internet - center" - Distance education in this case works as a means of individualization of education. The task of telecommunication technologies is to provide personalization of education, students' choice of educational forms, pace and level of preparation.
- 5) "student - Internet" - distribution of educational processes in space and time.

A student studies not in one full-time or distance education institution, but in several educational institutions at the same time. A student's comprehensive educational program is designed in such a way that he learns different educational subjects from different teachers in different educational institutions. In this case, the coordinating role is played by the full-time or distance education institution or the student's parents.

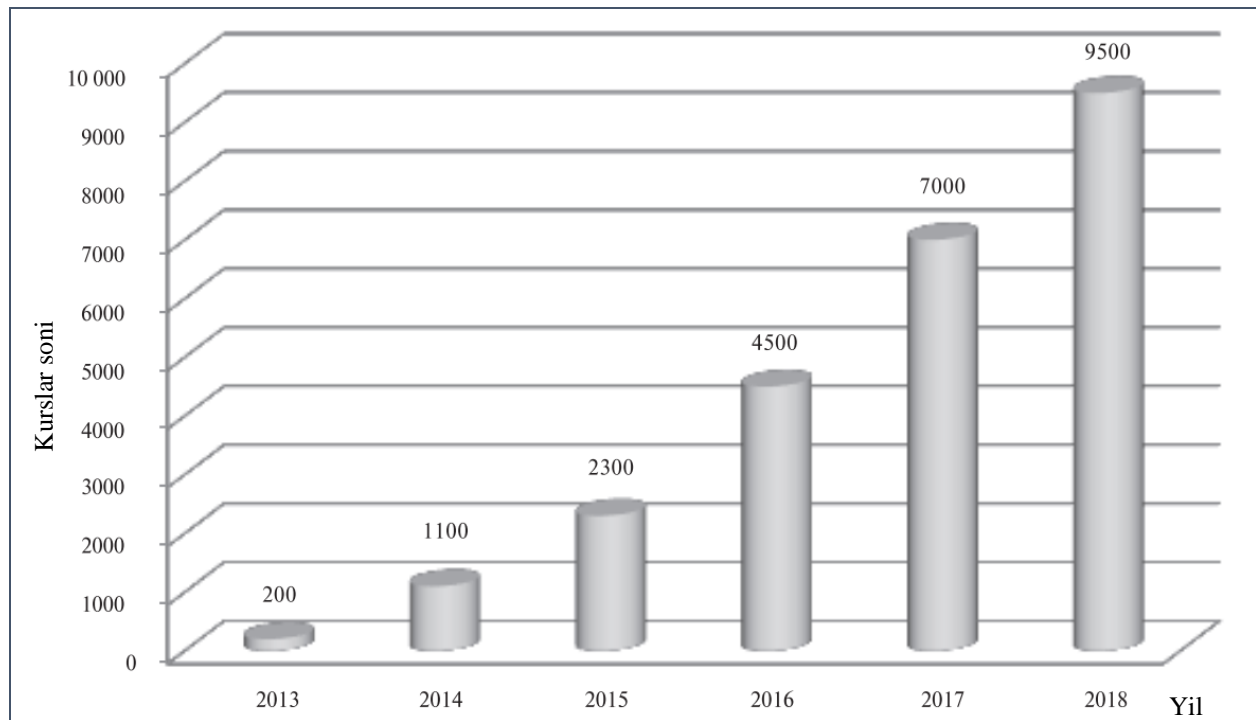


Figure 3. Growth dynamics of OOOK online courses

Today, the following distance technologies are being introduced into the educational system: individual differentiated and modular teaching; cooperative and problem-based education; Internet technologies; project method; cooperative learning; game technologies and others. The conducted statistical studies show that: 800 universities in the world offer more than 9500 different distance education courses, 81 million people have studied in OOOK courses.

A survey of large companies that use distance learning found that 83% of companies conduct questionnaires, 71% conduct tests, 48% evaluate changes in results, and 10% use economic calculates the effect. There are many different approaches to evaluating distance education, but qualitative and quantitative criteria are the most sought after. Teaching effectiveness D. Kirkpatrick, D. Philips, Tyler, Scrivens methods; Theories of P. Kearns; Staflelim, B. Aaron's CIPP Schemes; It is determined using CIRO models.

The most popular is the model that takes into account the return on investment. The return on investment ratio (ROI) is calculated according to the following formula:

$$IQK = \frac{\text{Daromadlar} - \text{Xarajatlar}}{\text{Investitsiyalar miqdori}} \times 100\%$$

When evaluating the effectiveness of the educational system, special attention is paid to educational technologies: the methodology of forming the system of knowledge, skills and qualifications; profitability of the educational process and reasonable price policy.

The basis of the distance education process is the purposeful independent and self-directed work of students. The distance education system combines computer and global communication using the information distribution mechanism to ensure two-way feedback with teachers, regardless of the place of residence and communication time of students. The following areas of further development of distance education are planned: computer telecommunication networks; interactive television; Case technologies; computer video conferencing. The use of information technologies is of great importance: database management systems (MBBT), text and graphic editors, spreadsheets, multimedia materials. As a result of a survey conducted among university teachers (90 people), the importance of the tasks of

applying the main components of innovative technologies was determined. The majority of teachers (56%) consider the development of research skills to be a priority; 40% — formation of computer skills, 37% — formation of information search culture skills; 33% - teamwork and group work skills.

In conclusion, for the maximum use of distance education, technical and theoretical educational bases should be at the appropriate level. At the same time, the interest of the educational and educational parties in the educational process plays an important role. Education based on the principles of humanism, integrativeness, universality and continuity through personal self-awareness, continuity, openness, meta-subjectivity and dialogism creates conditions for educating students, developing their individuality and acquiring the characteristics of their uniqueness.

References:

1. Akhmedov, B. A., Majidov, J. M., Narimbetova, Z. A., Kuralov, Yu. A. 2020 Active, interactive and distance forms of the cluster method of learning in the development of higher education. *Economics and society*, 12(79).
2. Modernization of the basic educational program in the technical university in accordance with the requirements of the federal state educational standards of higher education / L. G. Gagarina, V. G. Dorogov, D. G. Kovalenko, Ya. O. Teplova, P. Yu. Chumachenko, E. L. Fedotova // *Sovremennye problemy nauki i obrazovaniya*: [electronic. Nauch. journal.]. 2015. No. 3. URL: <https://www.science-education.ru/ru/article/view?id=20341> (access date: 12/22/2018).
3. Колдаев В. Д. Компетентностно-деятельностный подход к обучению студентов // *Компетентностный подход в образовании: коллективная монография* / Отв. ред. А. Ю. Нагорнова. Ульяновск: Зебра, 2016. С. 28—42.
4. Инновационное обучение // http://msk.treko.ru/show_dict_1234
5. Ilyasovich, D. I. (2023). OPPORTUNITIES TO USE THE GEOGEBRA PROGRAM IN THE EDUCATIONAL PROCESS. *Gospodarka i Innowacje.*, 41, 379-381.
6. Djurayev, I. (2023). AN UNDERSTANDING OF THE CAPABILITIES OF THE CAMTASIA STUDIO SOFTWARE TOOL. *Theoretical aspects in the formation of pedagogical sciences*, 2(21), 70-73.
7. Djurayev, I. (2023). UNDERSTANDING OF BLENDER SOFTWARE. *Models and methods in modern science*, 2(13), 40-45.
8. Djo'Rayev, I., Mamadaliyev, T., & Mamadaliyeva, E. (2021). ANDROID MOBIL OPERATSION TIZIMI. *Oriental renaissance: Innovative, educational, natural and social sciences*, 1(3), 99-104.
9. Ilyasovich, D. I. (2023). BLENDER PROGRAM AND ITS CAPABILITIES. *Gospodarka i Innowacje.*, 41, 382-385.
10. Ilyasovich, D. I., Muminzhonovich, T. S., & Muydinzhonovna, E. K. (2023). The Need to Develop Distance Education in General Secondary Schools. *Journal of Advanced Zoology*, 44.
11. Muydinjonov, D., Muydinjonov, Z., & Djurayev, I. (2023). THE EFFECTIVENESS OF ELECTRONIC LEARNING MANUALS AND THE BASIC CONCEPTS RELATED TO IT. *Interpretation and researches*, 1(1).
12. Muydinjonov, D., Muydinjonov, Z., & Djurayev, I. (2023). THE EFFECTIVENESS OF ELECTRONIC LEARNING MANUALS AND THE BASIC CONCEPTS RELATED TO IT. *Interpretation and researches*, 1(1).
13. HAKIMOVA, Y. (2023). RAQAMLI OLAMDA MASOFAVIY TA'LIMNI RIVOJLANTIRISH. *Scienceweb academic papers collection*.

14. HAKIMOVA, Y. (2023). IT-INDUSTRIYA SOHASIGA RAQOBATBARDOSH KADRLAR TAYYORLASHA XORIJ TAJRIBASI. *Scienceweb academic papers collection*.
15. Khakimova, Y. T. (2023). METHODOLOGY OF TEACHING" METHODOLOGY OF INFORMATICS" USING CLOUD TECHNOLOGIES IN THE PROCESS OF DISTANCE EDUCATION. *Open Access Repository*, 9(6), 238-240.
16. Xakimova Teacher, Y. T. (2021). STAGES OF IMPLEMENTATION OF DISTANCE LEARNING IN HIGHER EDUCATION INSTITUTIONS. *Central Asian Journal of Education*, 6(1), 1-7.
17. HAKIMOVA, Y., ALIYEVA, M., ARABOVA, A., & ERGASHEVA, A. (2023). RAQAMLI OLAMDA MASOFAVIY TA'LIMNI RIVOJLANTIRISH MEXANIZMLARI.
18. HAKIMOVA, Y., ALIYEVA, M., ARABOVA, A., & ERGASHEVA, A. (2023). RAQAMLI OLAMDA MASOFAVIY TA'LIMNI RIVOJLANTIRISH MEXANIZMLARI.
19. HAKIMOVA, Y., ALIYEVA, M., ARABOVA, A., & ERGASHEVA, A. (2023). RAQAMLI OLAMDA MASOFAVIY TA'LIMNI RIVOJLANTIRISH MEXANIZMLARI.
20. Hakimova, Y. T. (2023). MASOFIY TA'LIM JARAYONIDA BULUT TEXNOLOGIYALARIDAN FOYDALANISH "INFORMATIKA METODIKASI" FANINI O'QITISH METODIKASI. *Ochiq kirish ombori*, 9(6), 238-240.
21. Xakimova, Y. T., Djurayev, I. I., & Mamadjonova, S. V. (2021). INFORMATICS AND INFORMATION IN PRESCHOOL INSTITUTIONS METHODOLOGICAL SYSTEM OF INTRODUCTION OF SCIENCE "TECHNOLOGY". *Oriental renaissance: Innovative, educational, natural and social sciences*, 1(3), 105-110.
22. Ismailovich, TR, Meliquziyevich, SI, & Abdulaziz o'g'li, ZS (2023). BLENDER DASTURI VA UNING VIRTUAL MUHITDAGI O'RNI. *mínhínhàngyín (língjǐngín)*, 50 (12).
23. Rasulova, FK (2023). KELAJAK IT FAN O'QITUVCHILARINING IJODIY FAOLIYATINI RIVOJLANTIRISHDA MOBIL ILOVALARDAN FOYDALANISHDA O'QITISHNI TAKMONLASH. *XALQARO JURNALI IJTIMOIIY FAN VA fanlararo tadqiqot ISSN: 2277-3630 Ta'sir omili: 7.429*, 12 (12), 113-119.
24. Muydinovich, R. I. (2023). OLIY TA'LIM MUASSASALARIDA MULTIMEDIALI ELEKTRON O'QUV QO'LLANMALARIDAN FOYDALANISHNING SAMARADORLIGI VA STATISTIKASI. *SCIENTIFIC ASPECTS AND TRENDS IN THE FIELD OF SCIENTIFIC RESEARCH*, 1(8), 335-338.
25. Iloyovich, D. I. (2022). INFORMATION SECURITY AND CYBERSECURITY TRAINING IN THE HIGHER EDUCATION SYSTEM. *Open Access Repository*, 9(12), 14-16.
26. Turdaliyev, SM, Yuldashev, AR, Djo'rayev, II, & Mamadaliyev, TV (2021). Axborot xavfsizligini biznes uchun strategik qilish. *ACADEMICIA: Xalqaro multidisipliner tadqiqot jurnali*, 11 (4), 1019-1021.
27. Xakimova, Y. T., Djurayev, I. I., & Mamadjonova, S. V. (2021). INFORMATICS AND INFORMATION IN PRESCHOOL INSTITUTIONS METHODOLOGICAL SYSTEM OF INTRODUCTION OF SCIENCE "TECHNOLOGY". *Oriental renaissance: Innovative, educational, natural and social sciences*, 1(3), 105-110.