



## Theoretical Basis of Using the Electronic Learning Environment in the Educational Process

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**Abstract:** *In this article, are revealed the specific features of the electronic learning environment, the development of educational resources using electronic learning technologies that allow providing high-quality information and teaching-methodical support to the process of increasing educational efficiency ways and possibilities of gathering, systematization, storage and its usage.*

**Keywords:** *educational process, electronic learning environment, informatization, digital technologies, information technologies, educational resource, user.*

**Date of Submission:** 02-02-2024

**Date of Acceptance:** 13-03-2024

**Introduction.** In the era of rapid information updating, the issue of quality of education, enrichment of education with the latest innovations, technical tools and technologies, and integration of education with modern production are gaining importance in the educational institutions of every country. In the new concept of education until 2030 adopted by international organizations and developed countries, it is recognized that "Education is the main driving force of development and an important activity that leads to the goals of sustainable development<sup>1</sup>". Information and communication and modern pedagogical technologies are used to provide quality education, to develop the skills and abilities of learners and students at a high level, to create electronic resources in distance education, and to define promising directions for modeling the educational process.

Being researched, usage of electronic educational resources, improving the methodical support of subjects in the educational system, forming and developing the professional competence of students, wide-scale and public use of multimedia, information and communication technologies in training. The process of wide-scale use of digital technologies, in particular, the possibilities of information technologies in the educational process, is different in different sources: "Electronic educational environment", "Distance education", "Information technologies in education", "Computerized education". "Teaching technologies", "Modern information technologies in education", "Multimedia technologies in education" and other forms are synonymous with each other.

Electronic educational environment - collection, systematization, storage and retrieval of educational resources using electronic and distance learning technologies, which allow to provide the educational process with high-quality information and teaching-methodical support is a set of information, telecommunication technologies and tools intended for use. In previous years, great

<sup>1</sup> <https://uzbekistan.un.org/uz/sdgs>

attention was paid to the use of electronic educational resources as an electronic educational environment, in particular, electronic textbooks, electronic educational materials, electronic publications, electronic collections, and multimedia tools. the use of direct distance education system is being widely implemented [1].

**Analysis of literature:** It was reflected in the researches of a number of scientists, including A.Abduqadirov, U.Begimkulov, N.A.Muslimov, N.I.Taylakov, F.M.Zakirova, M.Aripov, M.E.Mamarajabov, S.Tursunovlar, D.Mamatov, E.S.Polat, A.Andreev, I.Zakharova, V.V.Kuznetsov, M.P.Lapchik, B.Andresen, M.Burns, M.Henderson in foreign countries.

In the monograph "Theory and Practice of Distance Education" by the scientists of our country, A. Abdugadirov and A. Pardaev, the scientific researches of foreign and our scientists are analyzed. it was concluded that self-control, studying and saving time due to the computer's implementation of complex calculation tasks, gives students the opportunity to develop clear thinking, motivation, and cognitive activity [2].

R. Hamdamov, U. Begimkulov and N. Taylokov's educational manual entitled "Information technologies in education" describes the use of modern information technologies in the continuous education system of our Republic, the creation of electronic educational literature, the use of them in the education system, in particular it is shown that use in distance education should be scientifically analyzed as a pedagogical problem, electronic textbooks should be created for the higher education system and a mechanism for their use in distance education [3].

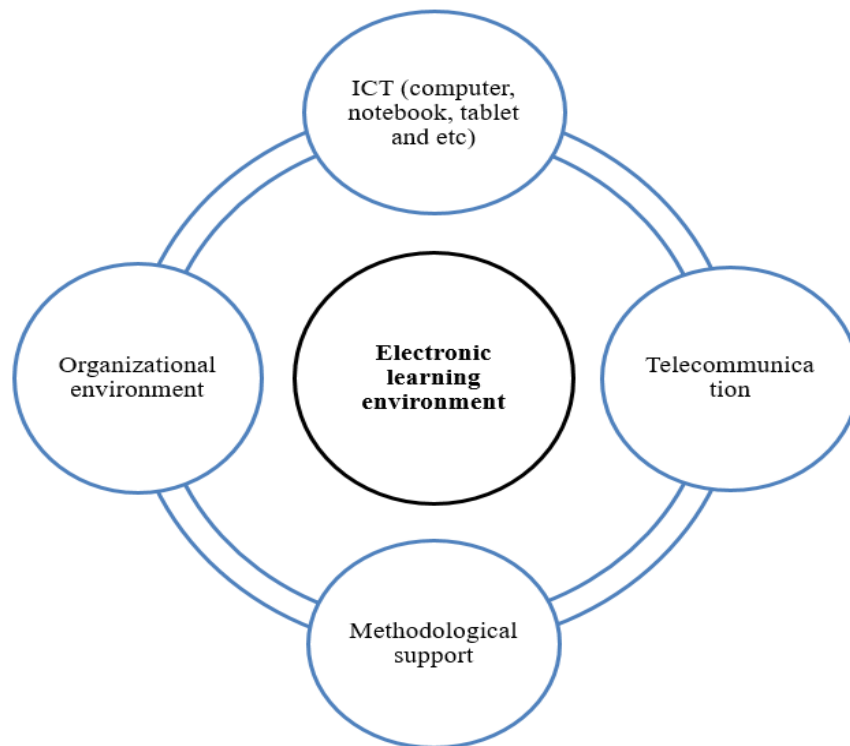
D.Mamatov's dissertation entitled "Pedagogical design of professional education processes in the electronic information-educational environment" shows the design of the electronic information-educational environment within the framework of person-oriented education [4].

The analysis of the literature shows that the influence of electronic education on the intellectual development of students in connection with the problems of informatization of the process of teaching educational subjects and the use of information technologies in education; theory of gradual formation of mental activity; theory of programmed education; organization of user communication with information communication technologies; designing the educational process; have been studied a number of problems, such as requirements for the use of software tools.

**Discussion:** Decree of the President of the Republic of Uzbekistan dated October 5, 2020 №. PD-6079 on the approval of the strategy "Digital Uzbekistan - 2030" and measures for its effective implementation "Electronic education for the higher education system, further improvement of its resources", as well as ensuring the use of domestic and global educational resources", in Resolution №. PD-5847 of October 8, 2019 "On approval of the Concept for the development of the higher education system of the Republic of Uzbekistan until 2030", the definition of such tasks as "the introduction of digital technologies and modern methods in the educational process, individualization based on digital technologies, development of distance education services, widespread introduction of webinar, online, blended learning, inverted classroom technologies", a number of works are being carried out within the framework of the project.

E-learning environment, as a synonym of informational learning environment, can be defined as personal computers, telecommunications, methodical and organizational environment of the process of preparation for specialization based on modern information technologies in order to meet the needs of users for educational resources [5].

From the conducted studies, we can include the following in the content of the electronic learning environment (Pic. 1).



**Pic 1. Content of electronic learning environment**

**ICT** (Information Communication Technologies) are technologies designed for personal use, equipped with user-friendly software. People use ICT to work on the Internet, in the process of education, to conduct scientific research, to automate business operations, to create multimedia applications, etc.

**Telecommunication** is a set of systems for transmitting, receiving and processing signal, symbol, text, image, voice and other types of information. It is carried out using wire, radio, optical or other electromagnetic systems. It is called a set of technical tools intended for the exchange of information between computers of one or more types.

In the environment of electronic learning telecommunications, the following tasks are performed:

- delivery of text, graphics and vocational to students;
- Email, Moodle, Creation of the exchange of information in the field of science between students and teachers;
- Organizing conferences with the students, TV conferences and various exchange of information with students of their peers from other higher educational institutions.

**Methodical supplement** - didactic tool of specialists, determines its component and is an integrated information model of the pedagogical system that shows in a certain form.

**Organizational environment** - the process of organizing lectures, practicals, seminars and independent education according to the purpose of the subject indicated in the curriculum. It is based on a technological map, training development and calendar plans [7].

Creating an electronic educational environment is important for pedagogues to develop electronic literature, teaching-methodical complexes, websites, portals and put them into practice. Educators themselves need to develop e-learning resources using various platforms and programs, maintain

blogs on websites and social networks, and use them effectively in training sessions to make an integral part of their professional activities.

**Results:** Reforms carried out in the educational system determine the need to improve the information supply of personnel training processes at one level or another. Approaches to information storage, processing and delivery, education and training using information technologies occupy one of the main places in most scientific researches and government programs.

Creating an electronic learning environment is an objective result of the development of the process of informatization in education. The goal of informatization of education is global acceleration of intellectual activity due to the involvement and application of information and telecommunication technologies.

One of the main features of the e-learning environment is that its participants can be not only learners from one group, but also those from another region or another country.

Electronic educational environment is a tool that provides the transfer and rapid exchange of educational information. This is very important for the modern education process. Based on this environment, it is possible to teach students to understand each other, to respect the opinions of others, to express their opinions freely, and to solve problems together. As a result, it enters the field of international uniform education.

In order to effectively organize an electronic learning environment, it is necessary to take into account the following:

- multiple, systematic, one-time or long-term observation of natural, physical, social and other phenomena to solve the given problem, collecting data from different regions;
- comparative study, making decisions and developing proposals to determine the exact trend of events, evidence, events that occur in different places;
- to compare and study the effectiveness of ways of solving a problem or issue (alternative or different methods), taking into account the differences between the cultural, ethnic, geographical conditions of network participants;
- comparative analysis of social and cultural views, taking into account specific cultural, traditional, religious features;
- development of a creative idea (practical, creative, scientific, etc.) under the condition of joint research of a specific problem;
- to hold competitions on learning and solving educational problems and to focus on the problem situations that arise in connection with cultural, educational traditions and other areas.

**Conclusion:** The main goal of creating an electronic learning environment in the educational system is to provide educational institutions with the level of education, information, educational resources, regardless of where the learners live, as well as the necessary educational services. The aim is to meet their demands for learning in a wide range of specialties using the most modern information and telecommunication technologies. Also, the use of the electronic educational environment provides fast communication, allows to quickly find the necessary information in a short time, saves time, quickly checks knowledge and updates educational information via the Internet.

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