



THE DEVELOPMENT OF DISTANCE LEARNING IN RECENT YEARS

¹Inomkhujayev Azamatjon Akramkhuja ugli

Teacher of digital technology and mathematics department, Kokand university. azamatjon1223@gmail.com

²Dexqonboyeva Moxira Kuchkorboy kizi

moxiramoxira2005@gmail.com

Student of foreign language and literature, Kokand University

<https://www.doi.org/10.5281/zenodo.7890857>

ARTICLE INFO

Received: 26th April 2023

Accepted: 02nd May 2023

Online: 03rd May 2023

KEY WORDS

Distance learning, electronic book, e-tests, multimedia, modularity, convenience, permanent information.

ABSTRACT

This article deals with the development of using the technologies in educational field. Today, scientific researches on spreading the use of modern information and communication technologies on education have been being carried out all over the world. Distance learning and computer-based education, using multi-media during lessons should be supported. As the world has been developing, presence of opportunities as distance learning have created significant chances for both learners and teachers to carry learning process well. Number of e-learning platforms based on distance learning are operating. The most considerable advantage is that if the learner can not attend to the courses because of some health or family problems, he can't miss the opportunity to learn, because video lessons and lectures are available on learning platforms. It can result in the significant increase in learning process.

In this developing world, the role of using internet has been increasing and being applied widely to education. Distance learning is considered the newest and the most comfortable way of learning. In this way of learning, teachers and tutors play the main role. Learners may become only passive learners. This issue should be resolved by introducing solutions as more online communicating, subcategorizing groups and making students work together and help one another. The most required important factors are:

- being equipped with necessary technologies;
- availability of special software programs.

In recent years, internet education in developed countries has been ameliorating rapidly, and it has entered with the term "e-learning". There are many systems for organizing e-learning. For example, author software products (Authoring tools), Virtual education process management systems – LMS (Learning Management Systems) and internal content management systems – CMS (Content Management Systems).

LMS are systems designed to organize and manage learning activities. Through them, communication system is established between the learners and the tutor, and a complex of



educational materials, video materials, lecture materials, presentations, e-books and are transmitted and accepted easily.

Distance education is an educational complex based on tools that share distance learning information, with the help of a teacher-specific information environment, providing educational services to all local and foreign learners.

Distance learning is an educational system based on new information and telecommunication technologies. It is a system that requires the learner to engage more independently by providing the learner with training conditions and communication with the teacher under certain standards and educational regulations. In this case, the process of study does not depend on what time and in which place the learner will be.

Video and audio conferences are certain educational pathways that connects two distanced audiences with each other using the Internet and other communication channels. For video and audio conferences, it is necessary to attract service professionals to organize a large volume of specialized equipment, communication channel with high speed.

Educating students by using e-mail is a way of learning to communicate through letters between students and the teacher. With email, it is possible to exchange information by sending and receiving various tests, tasks, question and answer messages.

Electronic textbooks and curriculums are educational resources that primarily cover theoretical and practical knowledge and are developed through computer programs to allow students to use them both online and offline. Electronic textbooks are now very widely used in education.

As the reputation of distance learning has improved over time, so too has the profile of students changed. In the 1980s, distance education students were older, and mostly part-time, and used libraries for reference services as well as for the delivery of books (Winter & Cameron, 1983). Today, using Deakin University as an example, approximately 55 percent (15,000 people) of the total enrolments are off-campus students or mixed mode students who are studying a combination of on- and off-campus subjects (Deakin University. Planning Unit, 2000). The profile is of younger students, especially in mixed mode studies, who combine fulltime study, part-time work to pay for their studies, and their social life. These students demand more flexible learning packages, increasingly online, that are supportive of their learning needs. The library has had to address the new demands of these students. It has done so by becoming a partner in the learning and teaching process.¹

Online distance learning portals are a way to use large amounts of information and gain new knowledge. The main task of these sites is to organize the educational process, establish electronic online communication between the tutor and the learner, provide opportunities for students to use the information and other distance learning services.

Distance learning materials include:

textbooks;

tests;

audio and video tutorials;

online lessons;

¹ HANDBOOK OF DISTANCE EDUCATION Michael Grahame Moore William G. Anderson, 2003



e-libraries;

Distance learning is considered the system for helping to continue steady education. Students can use distance education to receive basic or additional education, in addition to their professional activities.

To foster learning through the use of technology, it is useful to examine the pedagogical principles behind teaching and learning with the Internet and computer technologies. The motivation of the research was to emphasize the place of novelties in life, as well as the continuity of the need for technology in every platform of life, not only in education. For simple information, it is possible to use social networking sites for content and they are an easy way of learning when students need to learn fast. The age of the students was used for learning, based on the Internet platforms. Therefore, an Internet technology-based source was the main requirement for the group of students that provided the chance for the students to find information all in one place. The design of the electronic book involves an all-in-one piece of technology for the students, just like a Smartphone or tablet.²

One of the advantages of distance learning is that the learner can study at preferable time and even without being interrupted from work. Because of these advantages, distance learning is now common all around the world. A great many a professional is saving millions of dollars a year using this technique to improve or change their skills.

Another advantage of distance learning is that the students themselves choose the time of lessons, students begin to study at a time whenever they want, using the materials under the supervision of the teacher. The quality of knowledge that learners are gaining is determined depending on the performance of assignments, tests. The faster students finish the given program, the faster they graduate and receive a certificate. When the learners do not finish the program, they are given the opportunity to work independently and continue their studies.

A click of a mouse button provides any student anywhere with unprecedented opportunities to learn. So if a child in Grand Junction wants to master Japanese, it's possible online. If a budding artist in Five Points wants to study the masterpieces of the Louvre, it's possible online. If a future Stephen Hawking in La Junta wants to study Gravitational Entropy with the man himself, it's possible online. If military parents want continuity in their children's education throughout frequent moves to serve our country, then it's possible online.³

Distance learning usually can be very comfortable for women with children, people living in rural areas and poor Internet connection. This style is also very useful for people with disabilities. Online education is considered as a safe and viable option for continuing education, as the COVID-19 pandemic has radically changed the personal and professional world. According to the data of 2019 year, the United States, India, China, South Korea and the United Kingdom are the countries with the most investments on the development of distance learning.

² An Investigation of the Digital Teaching Book Compared to Traditional Books in Distance Education of Teacher Education Programs Rahme Uygarer and Hüseyin Uzunboylu, 2017

³ US Secretary of Education, Rod Paige, 2002



There are also diagnostic tests to determine professional competence, opportunities to offer needs-based courses, video lessons on topics, literature and presentations. After the audience has accumulated the specified credit-score, the options for downloading the certificate in electronic form are confirmed. In addition, the possibility of mutual file sharing and communication between the listener and the tutor is also included. There are also opportunities for the heads of the institution to supervise employees who are studying from their educational institutions.

The face-to-face meeting with the tutors is scheduled from time to time it is carried out on days, and at other times the necessary advice can receive by phone, fax, email. At the end of the course exams performed face-to-face or through appropriate means of communication carried.

Television teaching. Organization of the educational process to make broadcasting networks and television capacities, capabilities and by using the resource potential distance learning is implied. Through television as opposed to the traditional method of teaching has a number of advantages. First, through television the quality of training is much higher, since the training is highly qualified educators prepare. Secondly, a lecture on television is possible to use much more visual aids in time. In normal audience training, however, this is not possible. Thirdly, the lectures given by the TV thousands of learners can listen themselves at the same time.

Online teaching can be very demanding on faculty. A recent study found that online teaching demanded 14% more time than traditional teaching and fluctuated considerably during times of advising and assessment (Tomei, 2006). With the spread of online teaching practices in higher education, many academic staff are faced with technological and pedagogical demands that require skills they don't necessarily possess (Weaver, Robbie, & Borland, 2008). The quality of online programs depends upon the pedagogical practices of online teachers; therefore, faculty support in online programs is very important (Baran & Correia, 2014). Some believe that the success of online teaching depends upon the support of faculty on three main levels: teaching, community, and organization (Baran & Correia, 2014). The teaching level includes assistance with technology, pedagogy, and content through workshops, training programs, and one-on-one assistance. The challenge here is often the fact that academic staff find it hard to adapt to changes in their teaching or to allow someone else to tell them how to teach.⁴

Despite the fact that experts in the field have different opinions on the characteristics of distance education, almost all authors agree that the following main characteristics of distance education are flexibility, modularity, convenience, economic efficiency, speed of communication, breadth of coverage, technology, social equality, the new role of the teacher, the quality itself makes the following comments under control:

1. Adaptability - adapting the learning process to time, place and study period selection. Distance learning in the system, students are mainly in the form of lectures and seminars they

⁴ Distance Learning Florence Martin & Beth Oyarzun, 2017



do not participate in continuous training, but they will have the opportunity to work at a convenient time, place and speed.

2. Modularity - distance learning that has been provided in modules content, according to the learner's personal learning needs allows you to create an individual educational trajectory.

3. Convenience – without being dependent on the other facilities as transportation. And it is also considered really useful from the financial side;

4. Economic efficiency - the costs of the educational institution (utility costs, the cost of occupied space, etc.) and expenditures to the learner as travel fees, accommodation costs have been reduced. The cost of the education service can be reduced by 50-60% compared to the private one.

5. Promptness of communication - availability of quick and timely feedback between the tutor and the learner.

6. Broadness of coverage - distance learning information has the ability to reach the desired range of learners with distance learning, due to reasons that do not accommodate the target audience.

7. Technological - effective use of new information and communication technologies in the study process.

8. Social equality - equality of conditions and opportunities created for everyone in distance learning, regardless of health and socio-economic conditions.

9. Internationality - availability of convenient and quick opportunities for export and import of world achievements in the market of educational services in the implementation of educational goals and tasks.

10. The new role of the teacher is that the tutor is a consultant-mentor in their personal and professional development, who organizes the independent learning activities of students in a special psychological-pedagogical and information-communication technology environment.

11. Specific control of the quality of education - in distance education, distance exams, interviews, practical, course and project work, externship, and intellectual testing systems based on computers are used as a form of control. It should be emphasized that the quality control of distance education is important for the success of the entire system of education.

Advantage of e-learning often include flexibility and convenience for the learner, facilitation of communication between learner, greater adaptability to a learner's need, more variety in learner experience with using multimedia and the non-verbal presentation of teaching material. Video interaction provides visual and audio learner that the user control them that can paused and reversed for watching again. Cost effect e-learning in the Web and software development.⁵

Thus, the goal-oriented and controlled intensive independent work of the learner is the basis of the distance learning educational process. Students can study independently in a place convenient for them according to the set schedule, communicate with tutors by phone, fax, e-mail. One of the distinctive features of distance learning is that the learner works independently with a computer without a teacher, which in turn requires the learner to use modern telecommunication tools. According to scientists, the new term "distance education"

⁵ Distance Learning, Amani Mubarak Al-Khatir Al-Arimi, 2014



is related to the effective use of telecommunications and modern information technologies in pedagogical processes, which provides an opportunity to manage the educational process more effectively.

Online education is supported by technology-assisted methods of communication, instruction, and assessment. The methods of communication in online learning are very important since feedback given to students depends on them. For some students, synchronous communication helps with receiving direct feedback; whereas, for others, asynchronous communication methods allow for more control on the part of the students to process feedback and respond at their own pace (Gold, 2004). Some have stressed the importance of not simply creating online interaction but rather developing high quality technology-assisted communication to promote student outcomes (Gold, 2004). Students report that the most common negative aspects of online classes are technology problems and feeling lost in cyberspace. On the other hand, they appreciate the flexibility of online classes and find instructor availability and a sense of community to be positive aspects of online learning (El Mansour & Mupinga, 2007).⁶

There are number of advantages of distance education compared to traditional education from the aspects of organizational-pedagogical, content, technological, financial and individualization and differentiation of education. Based on all the points mentioned above, the advantages of distance learning in the educational system are as followings:

- distance learning provides everybody qualified tutors and comfortability, it provides opportunities for education to everyone;
- distance education allows to use educational programs of different levels;
- distance education serves to satisfy the learner's need for learning, to increase their intellectual potential;
- distance learning provides an opportunity to solve the tasks of individualized and differentiated education;
- distance education gives the learner the opportunity to study without struggling to travel to the place of lesson that is going to be hold, without leaving work;
- advantage of distance education in personnel training, provides an opportunity to increase the level of the tutor's professional skills, compensate for the lack of employees and reduce periodic repetition of the training course;
- distance learning creates the opportunity to widely use local and foreign e-learning resources;
- all links of the continuous education system and provides an opportunity to continuously acquire knowledge that helps to solve life problems;
- organizes independent learning whenever and wherever it is convenient for him and creates the opportunity to freely choose and obtain the educational tools he needs;
- provides an opportunity to independently manage the educational process, continuously or intermittently;
- regardless of the age of the learner, unlimited access to various educational resources is created;

⁶ Distance Learning Florence Martin & Beth Oyarzun, 2017



- provides an opportunity to combine unique educational programs formed in educational institutions;
- makes it possible to increase the quality of education and the level of education of society;

E-books allow you to save time and get up-to-date information. In e-books, you can find more concentrated and useful information, in this case, the price will be justified. It would seem that the cost of an e-book may exceed the cost of paper books, but the paper counterpart you can simply not find, or find, but not quite what you need. Ebooks can be an important source of information. E-book has a number of fundamental differences from the textbook made by the typographic method: the possibility of multimedia; providing virtual reality; a high degree of interactivity; the possibility of an individual approach to the student. The introduction of multimedia elements into the structure of the electronic textbook allows simultaneous transmission of various types of information. This usually means a combination of text, sound, graphics, animation, and video. Many processes and objects in the electronic textbook can be represented in the dynamics of their development, as well as in the form of 2D or 3D models, which causes the user the illusion of reality of the objects depicted [9]. Interactivity allows you to establish feedback from the user of information (student) to its source (teacher). For interactive interaction is characterized by immediate response and visually confirmed reaction to the action, message.⁷

The possibilities of meeting the basic didactic concepts of distance education will expand; increases the social and professional flexibility of the population, its awareness of entrepreneurship and social activity, and the ability to think independently. In general, there is enough experience in the world of using distance education in the continuing education system, and their analysis shows that distance education is cheaper than education in traditional educational institutions. If we have a regard to the future of distance education, the distance form of education is expanding day by day in the world, and by the end of the 21st century, distance education is expected to cover the whole world. It has also been stated by many scholars that distance learning can be a promising educational system in the third millennium. In conclusion, it can be said that in the future, the use of distance education will become more relevant day by day, and it will significantly differ from traditional education in terms of its advantages.

Similarly, learners in e-learning and open, distance, and flexible learning environments who often work independently with self-instructional study materials need help with the organization and management of resources as well as the skills to critically reflect on information they may have gathered. A considerable amount of work has gone on in supporting student learning with various types of cognitive tools and strategies in conventional technology-enhanced learning environments (see, for example, Gordin, Edelson, & Gomez, 1996; Scardamalia & Bereiter, 1994). Very little exists in the area of “cognitive support tools” for supporting student learning in e-learning and open, distance, and flexible technology-enhanced learning environments. Existing software-based cognitive tools provide support to students for learning in face-to-face educational settings where other forms of advisement and support are also available (see Scardamalia & Bereiter, 1991; Schauble,

⁷ Methodical aspects of preparation of educational content on the basis of distance education platforms, Alexander Tarasov, 2020



Raghaven, & Glaser, 1993). These support tools help learners organize their arguments for presentation and also guide them in their cognitive processes. They are, however, less effective in e-learning and open, distance, and flexible educational settings where learners do not have access to additional advisement and support.⁸

In learning environments nowadays work is rapidly diversifying. Many current jobs will disappear as technology advances. Routine work tasks will be automated and managed with the help of artificial intelligence. Robots will serve customers in health care, shopping will be done in virtual reality, and clients will appear as holograms in negotiation meetings. Remote working will expand to new fields of industry, and new technologies are parts of everyday work.

Teaching at a distance, contact teaching and combinations of these are known as blended teaching. In higher education, practical work-oriented projects are carried out cooperation with companies. The change in work and the development of technology affects teaching, placing demands on the creation of new technology integrated blended learning environments and pedagogical models and practices.

Summary. The possibilities of using information and communication technologies in the educational system include online learning, distance learning, social networks, e-learning platform courses. Education in three ways differs from traditional education in that it is cheap and convenient. In this case, a young learner can get a qualification, participate in additional courses, study in retraining courses without separating from the main activity. This type of education does not choose distance, age limit of students, social status. out of work, persons with disabilities, persons living in remote and poor families will also have access to education. The learner manages the study period himself, but the scheduling for assignments on the platform follows the deadlines. The best thing about online education is that education is accessible. Learning environments should serve a variety of pedagogical solutions and provide solutions to both general pedagogical and subject-specific challenges. Well-designed facilities and new technological solutions enable the diversification of learning environments and teaching methods while providing students with deeper and more authentic learning experiences of the phenomenon being learned. Companies are adopting new technologies in changing circumstances. In remote meetings and conferences, it is important to meet people and see their expressions. Video technologies can help, but how can remote meetings be made even more realistic? Virtual technologies can offer a more realistic sense of presence for participants.

References:

1. Distance Learning, Florence Martin & Beth Oyarzun – 2017.
2. Handbook of distance education, Michael Grahame Moore William G. Anderson – 2003.
3. Inomxojayev, Azamatjon Akramxoja Ogli, Axrorjon Egamnazar Ogli Yoldashev, and Shohruh Farxodjon Ogli Nishonqulov. "ZARARLI OBYEKTNING KOMPYUTERGA TA'SIRI UCHUN MATEMATIK MODEL IMMUNITET TIZIMI." Scientific progress 2.2 (2021): 1662-1667.

⁸ HANDBOOK OF DISTANCE EDUCATION Michael Grahame Moore William G. Anderson, 2003



4. An Investigation of the Digital Teaching Book Compared to Traditional Books in Distance Education of Teacher Education Programs, Rahme Uygarer and Hüseyin Uzunboylu – 2017.
5. Distance Learning, Amani Mubarak Al-Khatir Al-Arimi – 2014.
6. US Secretary of Education, Rod Paige – 2002.
7. Methodical aspects of preparation of educational content on the basis of distance education platforms, Alexander Tarasov – 2020.