

It-Basis of the Organization of the Educational Process in the Modern Era

By

Anastasia Vasilyeva

Northern (Arctic) Federal University named after M.V. Lomonosov, 163002 Russia,
Arkhangelsk, embankment, Northern Dvina, 17

Natalya Yurievna Korneeva

South Ural State, University of Humanities and Pedagogy

Mikhail Vasilyevich Kozhevnikov

South Ural State, University of Humanities and Pedagogy

Roman Viktorovich Osin

Department of General Psychology, Penza State University, 440026, Penza, Krasnaya St., 40

Nadezda Sergeevna Mironenko

Moscow Polytechnic University, 107023, Bolshaya Senenovskaya Street 38, Moscow, Russia

Egor Vyacheslavovich Ulitin

Candidate of Technical Sciences, Associate Professor of the Department of Pedagogy and
Socio-Economic Disciplines of the South Ural State Agrarian University

Abstract

The article discusses the features of digitalization of the educational process in the modern era. The author points out that the COVID-19 pandemic has brought with it huge changes in the world and challenges to the economic and social sustainability of the world community, including in the field of education.

The learning process has switched to using online resources as a virtual means of communication. Online education offers a new culture of learning. Students and pupils can study independently, get access to educational materials at any time and from any place. Online learning in its implementation requires the support of mobile devices such as smartphones, tablets and laptops which can be used to access information anywhere and anytime. The use of mobile technologies makes a great contribution to the world of education, including the achievement of distance learning goals.

The use of the Internet in the learning process was very effective. With distance learning, students, teachers and lecturers have the opportunity to organize training both in real time and to carry out consultations in a delayed format. All of the above points to the fact that modern technologies allow not only to strengthen the educational process by introducing various technological innovations into it, but also to build education in an online format, reducing various risks for students and preserving the continuity of the educational process.

Keywords: pedagogical education, digitalization, educational technologies, digital content.

Introduction

According to experts, the effectiveness of training is one of the quality standards of training and is often measured by the achievement of goals. Learning effectiveness is the results obtained after the implementation of the teaching and learning process. Effective learning is learning that provides opportunities for self-learning or performing the broadest possible activities.

Accordingly, the effectiveness of training is the standard of quality of education and is often measured by the achievement of goals that are realized after the implementation of the educational process, providing opportunities for independent studies or conducting the widest possible activities for teaching students [1].

Distance learning is learning in which the emphasis is on independent work. Independent learning is systematically organized by presenting educational materials, student recommendations, as well as monitoring student progress. With distance learning, the learning process does not take place in direct contact, that is, face to face between the teacher and the student.

Communication takes place in two directions, which are connected by mass media, such as computers, telephone, Internet and so on.

Distance learning is usually planned and organized outside of a stationary place of study. Therefore, special techniques are needed to develop educational materials, special teaching methods, communication methodologies through various technical means, which is also carried out through special organizational and administrative measures. Accordingly, it can be concluded that distance learning is learning that is carried out without direct face-to-face training, that is, without a face-to-face meeting of teachers and students [2].

The purpose of the study is the features of digitalization of the educational process in the modern era.

Materials and methods

When writing the paper, comparative research methods were applied, as well as an information array was investigated within the framework of the research topic.

Results

Advances in technology pose new challenges for education to transform into meeting the changing needs of the world of work and providing access and quality education in more flexible ways. New approaches and technologies use distance and blended learning and enhance the role of open universities in expanding participation in higher education. Online learning is seen as one of the effective tools to expand access and provide flexibility for continuous professional development and lifelong learning. The success of students in learning is a constant problem for open and distance education institutions.

Distance learning, also known by various names such as distance learning, e-learning, mobile learning or online learning, is a form of education in which teachers and students are physically separated from each other during the learning and learning process.

It is also an educational practice that effectively uses a wide range of tools and technologies to enrich the learning experience of students and facilitate communication between students and teachers. The minimum technological requirements for successful distance learning include the purchase of hardware such as a computer, a mobile device (cell phone) or a webcam, some kind of listening device, video conferencing applications such as WebEx or Zoom, Microsoft Windows or Apple operating systems, and a stable Internet connection with a speed of about 56K (56,000) or higher [3].

Distance learning as one of the forms of organization of the educational process has the following characteristics:

- Programs are organized according to the level, type and nature of education;
- in the learning process, there is no direct meeting of the teacher and the student face to face, so there is no direct contact between the teacher and the student;
- students and teachers are separated throughout the educational process, so there is no face-to-face communication, as in normal training, respectively, students should be able to study independently;
- Distance education is an education system that focuses on self-learning;
- Educational institutions develop and prepare educational materials, as well as provide educational assistance services to students;
- Educational materials are delivered through learning tools, such as computers with Internet access or programs built on e-learning. Thanks to these learning tools, two-way (interactive) communication is carried out between students and teachers, students with other students or students with distance learning providers;
- A new paradigm emerging in distance learning is the role of the teacher, who is rather a facilitator, provides assistance to the student in learning;
- Students should be active, interactive and independently participate in the learning process [4].

The impact of the COVID-19 pandemic on education or the change in learning compared to a regular classroom in online classes is as follows. Firstly, distance learning at home is an innovation for most families, causing psychological problems for students who are accustomed to face-to-face training. This condition creates confusion among the population due to limited information and technological infrastructure, especially in the regions.

Secondly, online learning is a form of learning that is supported by information and communication technologies. Distance learning occurs when students and teachers are not physically present at school. Such training can be completely remote (hybrid) or mixed, namely distance and classroom-training (mixed) [5].

During distance learning, students receive learning materials through text, images, audio, video and interpersonal interactions, as well as through various online applications. One of the main functions of digital media in modern society is to facilitate the exchange of knowledge. One of the keys to the development of digital infrastructure in the field of knowledge is the digitization of libraries or collections of knowledge, which are digital resources for education.

However, on the other hand, there are new problems associated with limitations in the availability of equipment and the ability to use technology. Aspects that hinder the effectiveness of the use of technologies for online learning include limited knowledge of

communication and information technologies by teachers and students, expensive or non-compliant technological means and infrastructure, limited or uneven Internet access, as well as the lack of an affordable budget for technology and online learning costs [6].

Distance communication for learning purposes can be carried out in different ways and is addressed to different categories of students (students, teachers, specialists, managers) with different goals for each category. If, for example, the purpose of distance learning is to offer a university course online, then the entire structure of the digital environment should be adapted to the specific needs of this audience.

But in all types of remote communication there are some common aspects, such as the use of cameras, microphones, a virtual classroom, sharing space for documents and some others. In all cases, there are two main concepts in distance learning: asynchronous learning (where two parts do not interact in real time) and synchronous learning (where two parts interact in real time) [7].

The main environment in which the distance learning process takes place is an online communication platform. The term "platform" refers to an online environment with functionality that allows you to create separate sections, assign separate roles to participants and enable direct communication between all participants.

Instagram Facebook, Twitter, and social networks are examples of this definition (of course, with completely different communication goals), where users have different roles and can communicate with each other in different ways.

The concept of asynchronous learning refers to a process in which a student must follow a course or set of learning materials at their own pace. In this type of distance learning process, the teacher uploads educational materials to online platforms that provide this type of asynchronous communication, such as Moodle, Blackboard, Classter, etc. The concept of synchronous learning refers to the process of "simulating" a physical classroom, when teachers and students are simultaneously online in a virtual classroom.

There are many widely available platforms that offer functions for creating synchronous and asynchronous learning environments.

Few of them can combine both environments on the same platform. For example, cloud-based SMS Classter offers educational institutions the ability to switch from synchronous to asynchronous learning, depending on the needs of a particular course or subject. This can be done using ready-made integrations with popular tools such as MS Teams, Cisco Webex, Zoom (for synchronous learning) and Moodle (for asynchronous learning) [8].

The role of educational design is crucial in open and distance education, because remotely students are physically or geographically separated from their teachers. The learning design process includes identifying student needs, defining learning objectives, developing assessments, and developing learning and learning activities to ensure quality learning.

Distance learning students are ready to develop the ability to learn independently, motivate themselves to learn and participate in learning activities that make them persistent and successful in learning. Open and distance education institutions will also have to move to digitalization of learning and teaching, taking into account the training needs and

technological support needed for learning. The task of teachers engaged in distance learning is to support learning and make distance learning effective for students.

It is necessary to determine which educational design and development are suitable for distance learning, how the media are included in the educational process of distance students and how distance learning activities are designed and developed to motivate students to study [9].

Discussion

With the development of new communication technologies, distance education can create a framework that will promote cooperation and interdependence of those who study. But the type and design of technological tools and platforms, applied pedagogical methods directly affect the quality and involvement of students in education [10].

It should be noted that when using digital technologies in smart and correct ways, the latter can provide a more individual, more flexible and child-oriented education.

Students should demand dynamic interactivity in a distance learning course. A successful distance learning course will require the student to communicate with teachers or friends in order to work together and learn. The fact that the training is conducted using a computer does not mean that they do not have the right to ask questions about the content.

The opinions of scientists about distance learning at an early age are different. There are researchers who believe that it is necessary to use ICT and distance education to a certain level in early learning, and that this can help the child's development. But on the other hand, we should not forget that technologies can have risks and limitations.

Some researchers believe that distance learning cannot be used at an early age, because it does not allow children to be prepared socially and emotionally ready for school, and that this can worsen their health and development. Preschool children in distance education may experience social isolation, lack of interactivity and involvement [11].

Regardless of the discussion, distance education in preschool education can organize creative and communicative activities for children. Experts confirm that digital education can help preschoolers understand the abstract concepts surrounding them and involve them in learning, reasoning and problem solving for development purposes.

Experts point out that education should be considered as "part of the multimodal life of the world"; therefore, it should be contextualized. It is noted that it is important to create a safe and healthy online environment for children, improving their ability to reason and analyze.

The traditional style of live lectures sets the basic standard for the quality of education. The absence of a traditional face-to-face learning environment can lead to distractions and difficulties in concentrating on lectures [12].

Individual educators during the COVID-19 pandemic faced problems involving students with short attention spans when students were taught on online platforms. They were concerned that students were marking attendance by proxy while participating in other online activities at the same time. Live lectures ensure that the student or learner receives content,

whereas online lectures can go unnoticed due to lack of self-discipline or the presence of distractions.

These inconsistencies between modalities can lead to a decrease in the perceived quality of the online education style. In addition, students' concerns about ignorance of online educational programs, technical difficulties and a possible increase in the amount of work in the classroom due to inexperience in the online form of education can create barriers to high-quality online education for students.

However, using both asynchronous and synchronous online learning methods, the instructors appreciated online learning and realized that online learning had fulfilled its task in educating medical students during the pandemic.

Learning using the asynchronous recorded method allows students to watch lectures in a convenient place, save time without visiting websites, and increase their interest and ability to focus on learning. Using this method, medical students can view lessons according to their learning needs, which can improve and facilitate individual learning. Moreover, there are reports that students who switched to an e-learning environment during the COVID-19 pandemic would prefer to continue studying online or using a hybrid method (a combination of face-to-face and e-learning) in the future.

During the COVID-19 period, it was necessary to select appropriate learning tools that would encourage the participation and involvement of children in the educational process.

Participation in preschool education has long-term benefits not only for development in childhood, but also in later life. High-quality early childhood education is an effective tool that lays the foundation for a positive trajectory of children's development [13].

In this regard, it is very important to carry out a competent selection of learning tools and online tools that will contribute not only to achieving the goals of the educational process, but also make it accessible to students and expand the opportunities for communication in an online environment. For this reason, it is necessary to carry out close contact work with specialists who carry out technical adjustment and support of the distance education system of a school or university, so that possible technical failures could not negatively affect the implementation of the educational process and would not cause students to develop a negative attitude to the educational process.

Conclusion

Thus, it can be concluded that in modern conditions, the organization of online learning is a necessary measure, which is implemented if there is no possibility of full-time organization of the educational process. One of these conditions was the coronavirus pandemic in 2020, and most schools and universities in the world switched to a remote format of classes.

To organize such a form of training, various technical means were used and online educational resources and programs were used, which allowed students to master the necessary educational material as part of a course of study in a particular subject.

Of course, it is quite difficult to overestimate the advantages of distance learning, because without this form of organization of the educational process, it would be impossible to continue receiving education at different levels.

However, modern information and communication technologies made it possible not only to connect the teacher and the student in the educational process in an online format, but also made it possible to improve this communication process by offering teachers various options for technological improvements of certain training courses, as well as expanding the technical capabilities of educational platforms.

Accordingly, we can say that online learning in modern conditions is a necessary "educational measure" that has organically merged into the existing educational conditions and is now adopted by educational organizations along with the generally accepted full-time form of education.

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