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MODERN SCIENTIFIC  
THOUGHT**

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# **TRENDS IN THE DEVELOPMENT OF MODERN SCIENTIFIC THOUGHT**

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# DISTANCE LEARNING IN MEDICAL HIGHER EDUCATION INSTITUTIONS AS AN ALTERNATIVE TO LEARNING IN A COVID-19 PANDEMIC

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**Abstract:** distance learning in a covid-19 pandemic is an alternative method of learning in the vast majority of educational institutions, including medical schools. This form of education has both advantages and disadvantages in providing educational services.

**Key words:** distance learning, high medical school, COVID-19.

The 2019 coronavirus outbreak (COVID-19) posed a unique challenge to healthcare systems around the world, including medical education. The social distance did not allow medical students to continue their studies in traditional settings, including practical classes, lectures and participation in clinical visits. Medical universities quickly adapted to this crisis by translating their curricula online. Although the COVID-19 pandemic has made adjustments in medical education, it is this situation that has worked as a catalyst for remote operation [1].

In the developed world, distance learning is a fairly common method of obtaining education. Distance e-learning is defined as the use of computer technology for training, including programs that provide learning both online and offline, or both [2] and aims to effectively build knowledge about individual experience and practice students [2]. There are different types of e-learning, including e-learning, computer learning, virtual and digital classes. There are also modes of e-learning: distance learning and computer interaction. Distance learning provides access to learning for students geographically distant from the teacher, while computer interaction is an interactive technique that presents learning material, observes and evaluates the progress of students [3]. The effectiveness of distance e-learning has been proven in various educational and government studies [3–5]. In particular, data from the Institute for Educational Research in Canada showed that students were more committed to learning using different methods, and e-books and online articles were introduced into the learning process [5, 6].

Online learning has a historical root in the development of education. The latter was an alternative educational practice and program for non-traditional students who did not have the opportunity to receive education [7]. Physical and temporal distance prompted the formation of a new form of learning 2 centuries ago. The development of the postal system provided an opportunity to educate students who worked during the day and lived far from the school.

Distance learning involves two technologically different processes based on the timeliness of interactivity, which should be taken into account when developing the learning process. One is synchronous mode, where all participants interact in real time, or in a text-based or video-based environment. An example of synchronous online learning is chat or video conferencing. Asynchronous mode allows participants in the learning process to work independently of each other and time constraints. An example of asynchronous online learning is the placement of lectures in open access on the learning platform, the content of which students can read at any time convenient for them. Since both modes of online interactivity have advantages and disadvantages, it is important to use them in combination to achieve appropriate goals [8]. The effectiveness of the synchronous learning mode is due to the social presence of participants in the learning process, the ability to discuss topics with previously prepared material, if necessary, the availability of feedback in real time. At the same time, synchronous online learning activities often have a limited time frame and leave the audience little time to think. Regarding the advantages of asynchronous learning, it is worth noting the benefits of overcoming the lack of dialogue, as students and teachers can share ideas without time limit for reflection and discuss current and complex topics [9-12].

Although the COVID-19 pandemic poses a threat to traditional medical education, it has also demonstrated the potential to recognize online learning as an effective pedagogical method. Distance learning not only expands the opportunities for quality education, but also allows it to diversify the learning process, which arouses students' interest in discipline and motivation. Many new software tools like Zoom, Skype, Hangouts Meet allow you to provide real-time discussions, debates and surveys of students. Demonstration of the teacher's screen allows to carry out a number of functions for reproduction of the information, helps to carry out interactive discussion of results of laboratory researches, electrocardiograms, X-ray and other additional materials. These features are also used for streaming lectures, where, in addition to demonstrations, you can provide comments on the material presented. In particular, the control test is an important method of the control system. This allows you to objectively check the assessment of knowledge, skills, abilities and avoids the possible subjectivity of the teacher. Another advantage of distance learning is that they have many services that provide this capability. The simplest version of testing is Google Forms, which allows the teacher for a very limited time to check the quality of knowledge in a large number of students simultaneously, evaluate and discuss the issue [13-14].

Distance education in the field of health care has just begun, and this method of teaching has great potential. Previously, distance education would be considered lower than traditional training in any field, but distance learning in all academic areas is in great demand, especially for busy professionals. This form of education at the

postgraduate stage of professional development of doctors proved to be especially relevant.

Online learning can be considered as an alternative way of learning in medical schools only to master the theoretical material, however, as for mastering the practical part of learning to develop all the competencies provided by the curriculum, of course, offline learning is needed at the patient's bedside.

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