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# PEDAGOGICAL SCIENCES

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## BLENDING LEARNING AS A TOOL FOR MODERNIZING MODERN EDUCATION

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**Resume** This literature review presents the features of the implementation of a mixed form of education for higher medical education in the realities of today. The data on the main types of full-time and part-time interactive educational activities, their essence, advantages and disadvantages are given.

**Key words:** blended learning, interactive learning, students of higher medical education, formation of competencies

**Introduction** Blended learning as a tool for modernization of modern education in practice is represented in the creation of new pedagogical methods based on the integration of traditional approaches to the organization of the educational process, where knowledge is transferred, and e-learning technologies [10].

**In general, blended learning refers to the following [1]:**

1. Some learning happens online in a format where the student has control over the path and pace at which they engage with content.
2. Some learning happens in an instructor-led classroom.
3. Online and in-person learning is complementary, creating a truly integrated

learning environment

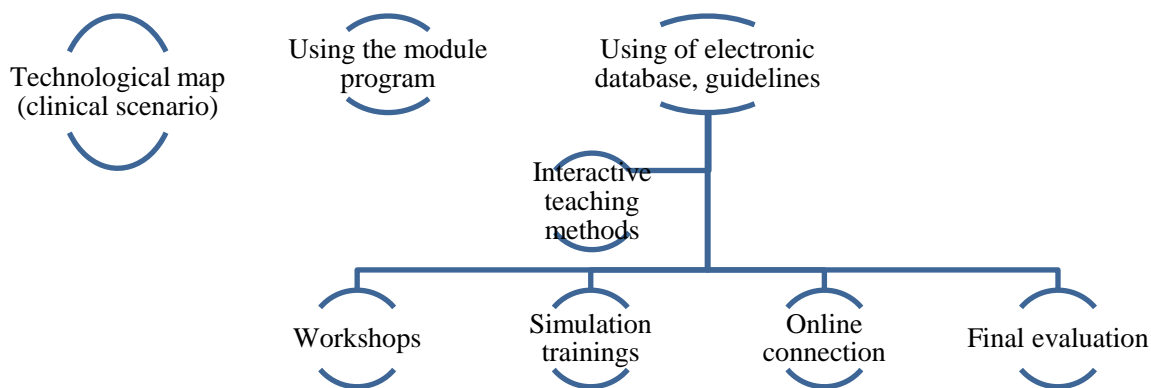
Improving the professional level of competences, preparing graduates of higher medical education for an objective structured practical (clinical) exam in the difficult conditions of the health care system are relevant issues of modern higher medical education [2, 3]. Mixed form of educational process involves a combination of synchronous and asynchronous interaction of subjects with the availability of a learning platform with a clear learning management system (such as CampusCruiser LMS, Desire2Learn, Blackboard, WebCT, Moodle, Sakai), which should include: learning content, process management education, approved evaluation criteria, tools for interaction between the subjects of the educational process, differentiated formats of data exchange, Ukrainian-language interface [9].

According to the data Maria S. Abbasi et al. [4], levels of satisfaction with e-learning were higher in developed countries (7.34%) compared to developing countries (5.82%). Most participants agreed that e-learning was satisfactory for acquiring knowledge, but not effective for acquiring clinical and technical skills. As the COVID-19 lockdown eases, there is a need to improve the methods used in e-learning and more blended learning among medical students is recommended.

### **Classification of types of educational activities**

The face-to-face training event involves the personal participation of the higher education student in the educational event at the venue or remote participation in real time using electronic means of communication.

Webinar is a leading distance form of face-to-face educational process with interactive educational presentation, allows to simulate face-to-face learning, creates sufficient information content, pace and activity of all subjects of educational process, satisfying instrumental (reproduction of professional competencies), interactive (communicative interaction), presentation needs. Forms of webinars can be presented through lectures, seminars, workshops, trainings, final defense of projects, conferences, workshops, cases, business and role-playing games, Fig. 1 [4,7].



**Fig. 1. Schematic diagram of blended learning.**

Didactic opportunities of the webinar: managing the exchange of messages and delegating the right to moderate the event; use of a virtual board; desktop demonstration; poll; testing. The positive consequences of webinar classes are the possibility of recording with further reproduction, leveling the subjective attitude of the teacher to the evaluation and mechanical verification of test answers, the breadth of interactive involvement.

The disadvantages of using webinars include: 1). Psychological (lack of emotional contact and indirect communication through gadgets; 2). Methodical (motivation to master various forms of webinars, the need to reproduce standardized clinical situations and the development of technological maps); 3). Technical (lack of quality network connection); 4). Software (lack of optimal servers) [2].

Video conferencing (web forum) - compared to the webinar, involves the active interaction of distance learning participants in the form of "questions and answers".

E-learning - is not in real time in order to access learning materials at a convenient time, using electronic technology.

Student feedback allows for rich improvement in teaching program and the designs of our online learning activities. More research is needed to better understand

the experiences of students in following such a curriculum, to evaluate their newly gained knowledge with specific tools, and to monitor how they implement their skills into clinical practice [5].

### **Organization of interactive classes with a blended form of education**

Types of interactive activities in a mixed form of undergraduate and postgraduate education are also presented in the form of master classes, seminars, simulation trainings or trainings on mastering practical skills, participation in student scientific-practical conferences (including symposiums, congresses and congresses of young scientists) [6].

Master classes - presentation and demonstration of certain methods, technologies of diagnosis and treatment in order to improve the professional level and exchange of best practices of participants, involvement in new areas of knowledge to improve practical skills for those who have already achieved sufficient professionalism (such as qualification doctor).

Trainings are a method of mastering by participants new professional knowledge and practical skills both in separate sections of the subject and on topical issues of organization of medical care in general in student groups of up to 20 people who are active participants in the training process. The purpose of the trainings is to gain knowledge, form competencies (through verbalization, visualization, practical processing according to the provided algorithms) and introduce the social context (self-perception, representation of the unique mission of the doctor, professional environment in which equal interaction principles, principles of academic integrity) [1, 11].

Workshops are the most effective type of active acquisition of professional skills among higher education students, when in contrast to trainings (when students receive ready-made solutions from teachers), workshop participants independently find optimal achievements in collective cooperation under the guidance of a moderator. Provides theoretical material, activates the group in the process of finding solutions [8].

Simulation trainings - each student, in person, in small subgroups (4-6 people)



of practical competencies of a certain level according to standardized protocols-scenarios in an artificial professional environment (station or standardized equipped, according to the technological passport, place) to provide mutual safety of both patients and healthcare professionals.

Professional (thematic) school - training on topical issues of the subject or problem, which combines training in large groups with lectures with subsequent seminars in small subgroups of 10-12 people.

Scientific conference (theoretical, practical, technical, research) - an event that occupies an intermediate position between the seminar and the congress, where the plenary session, as well as work in sections with presentation and discussion of student research papers, which provides a preparatory stage for information letters, collection of reports and abstracts with subsequent publication of conference materials. The scientific-practical conference aims to discuss current issues of medical science and practice, recommendations for their solution. Congress - a kind of organization of student research activities in the form of face-to-face meetings or meetings with a broad representation of the medical and scientific community of young scientists at the national level with the participation of international speakers. The symposium is an event for specialists of one profile on an already known (relevant) scientific issue, which is discussed at the interregional level with a certain frequency. Cong is a face-to-face meeting of elected representatives (delegates) of a certain higher education institution or professional community in order to resolve issues in a specific area.

### **Conclusion**

Thus, blended learning is an educational concept within which the student receives knowledge both independently (online) and in person (with a teacher). The main elements of the blended learning model are lecture and practical lessons, seminars, practical tasks (independent and control works, abstracts, reports, etc.), educational materials (textbooks, manuals), online communication (chat, forum, e-mail), individual and group online projects, virtual classroom, audio- and videolectures, simulation trainings. Mixed form of learning is an effective means of

overcoming the contradictions between the personality-oriented form of learning in the classical model of education and the impersonal language form of information transfer, but not knowledge in the electronic form of education. The most effective factor in the success of blended learning is the willingness of teachers to adapt to new conditions, forms and methods of learning, associate synchronous and asynchronous types of interaction personalize learning and ensure effective communication between all learners.

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