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PECULIARITIES OF MIXED LEARNING UNDER WARTIME CONDITIONS

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ОСОБЛИВОСТІ ЗМІШАНОГО НАВЧАННЯ В УМОВАХ ВІЙНИ

Abstract. The article deals with the issues of applying mixed learning techniques for the formation of the students' professional competence at higher medical educational institutions under wartime conditions. It is found out the essence of the concept of "mixed learning", its peculiarities, methods, advantages and disadvantages, which must be taken into account to train a future healthcare worker. The need of mastering mixed learning basic techniques for the correct organization of the educational process is emphasized. English communicative approach to medical students' professional competence is an integral aspect of professionally oriented study at the higher medical educational institution. Military actions in the country require the application of new principles and practices of higher medical education transformation. Therefore, the issue of mixed education for students of medical institutions of higher education under wartime conditions is one of the most crucial problems in Ukraine. Attention is focused on the need to organize and establish a high-quality educational process in the conditions of war using distance model of education. The issues of semantic content for English for Specific Purposes, selection of training material, and development of communicative component in the process of students' mastering English language skills in the process of distance learning in the conditions of war are under consideration. Both theoretical and methodological aspects of mixed learning for mastering English for Specific Purposes and the Latin language, which are studied through combining the organic application of modern distance learning technologies, are covered. The main distance learning technologies using the MS Teams and Moodle platforms are characterized. The use of information technologies of mixed learning under wartime conditions at professionally targeted classes of English and Latin has been found to develop speech skills and abilities that make possible to express an opinion, develop thinking, as well as to have high motivational characteristics, taking into account the realities of today.

Key words: mixed learning; distance learning; communicative approach; professional competence.

Анотація. Стаття присвячена обґрунтуванню особливостей застосування методик змішаного навчання для формування фахової компетентності у студентів медичних закладів вищої освіти в умовах війни. З'ясовано суть поняття «змішане навчання», його особливості, методики, переваги та недоліки, які необхідно враховувати при навчанні майбутнього працівника охорони здоров'я. Наголошується на необхідності засвоєння основних методів змішаного навчання для правильної організації навчального процесу. Англійський комунікативний підхід фахової компетентності студента-медика є невід'ємним аспектом професійно орієнтованого навчання у медичному закладі вищої освіти. Військові дії у країні вимагають застосування нових принципів та практик трансформації вищої медичної освіти. Тому питання змішаного навчання студентів медичних закладів вищої освіти в умовах війни є актуальним в Україні. Увага акцентується на необхідності організації і налагодження якісного освітнього процесу в умовах військового стану, використовуючи дистанційну форму навчання. Розглядаються питання змістового наповнення курсу англійської мови за професійним спрямуванням, відбору навчального матеріалу, розвитку комунікативної складової в процесі оволодіння студентами англійськими вміннями у процесі дистанційного навчання в умовах воєнного стану. Висвітлено теоретичні та методологічні аспекти змішаного навчання для засвоєння англійської мови за професійним спрямуванням та латинської мови, вивчення яких здійснюється шляхом органічного застосування сучасних технологій дистанційного навчання. Охарактеризовано основні дистанційні технології навчання за допомогою платформ MS Teams та Moodle. З'ясовано, що використання інформаційних технологій змішаного навчання в умовах воєнного стану на заняттях англійської мови за професійним спрямуванням розвиває мовленнєві навички та вміння, які надають можливість висловлювати думку, розвивати мислення, а також мають високі мотиваційні характеристики, враховуючи реалії воєнного стану.

Ключові слова: змішане навчання; дистанційне навчання; комунікативний підхід; фахова компетентність.

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Introduction. Dramatic changes in all spheres of the Ukrainians' life caused by the full-scale war as well as introduction of martial law outlined specific challenges in the area of education. Besides, training of future medical specialists in the realities of wartime has become a crucial task for higher medical establishments. Warfare in the country, entailing serious consequences in health care owing to the rising number of people with emotional or psychological traumas or those who have been traumatized and wounded at the battle-fields or even in their own homes call for new principles and practices in medicine. Even during the COVID-19 pandemic, institutions of higher education, including medical ones, had to format teaching process rapidly, adapting both faculty and students to new distance learning models in virtual classrooms. Such studying challenges during the war in Ukraine and the ways to meet them remain of great urgency today. Therefore, teachers or instructors are in constant search of new models of high-quality educational techniques.

For recent years, medical universities have implemented the use of distance learning. Specifics of medical education appear to be among its drawbacks. Undoubtedly, future doctors' professional competencies are mastered in the university classrooms or hospital wards, so personal presence of the learners is obligatory [2].

Definitely, in the conditions of pandemic or martial law, the students of higher education should not be deprived of the opportunity to receive a quality education, so an approach that combines instructor-led classroom training and online learning activities known as mixed learning should be practised [11].

The issues of implementing mixed learning in education process have been studied by a great number of scientists, in particular Dzh. Beili, O. Kovalenko, N. Korniiets, O. Korotun, O. Kryvonos, V. Kukharenko, N. Nalyvaiko, Dzh. Runi, O. Spirina, Kh. Steiker, M. Khorn, A. Striuk, Yu. Tryus, K. Chzhan, L. Shapran et al. The peculiarities of mixed and distance learning have been in the focus of attention of A. Burmistrova, V. Demkyn, M. Koval, I. Lisetska, E. Novikova, O. Khmel, S. Shokaliuk and others. The issues of combining face-to-face training with distant support of the disciplines in medical institutions of higher education have been raised in the works of foreign scientists A. Choules, L. Hsu, A. Kavadella, Y. Frantz, V. Bozalek, K. Shaffer, Y. Small, S. Strickland, and M. Vesterlaken. However, theoretical and practical approaches to the implementation of mixed learning in medical institutions of higher education in teaching

foreign languages need to be further studied and improved.

The aim – to present an analytical review of the literature data regarding the issues studied; analysing existing theoretical and practical approaches to mixed learning in medical institutions of higher education in new realities of life, as well as at exploring essential tools of MS Teams corporate platform in teaching subjects at the Department of Foreign Languages of I. Horbachevsky Ternopil National Medical University.

Theoretical framework. It is generally accepted that the advent of the networking and Internet in the late 1990s gave rise to a concept of a “mixed learning”, the term lacking unified definition for a long time. However, all scientists adhered to the idea that this training model presumed the process of teaching and learning with students and instructor being at different places. It took many years or even decades for the new terminologies like online learning, web-based learning or mixed learning to have been developed.

Mixed learning model implies harmonious interaction of conservative and online forms of education [4]. O. Korotun regards mixed learning as a purposeful process of learning subjects' interaction, combining traditional and distance teaching models and taking place both in the classroom and online, it being based on the broad application of information technologies [6].

According to “Recommendations on the Implementation of Mixed Education at the Professional Institutions of Pre-higher and Higher Education”, mixed learning technologies enable to ensure coordination of the educational programs content; to carry out constant monitoring of the teaching and learning process; to provide individual courses for potential entrants; and, in case of need, to commercialize educational content [9].

O. Kovalenko notes that mixed learning techniques are increasingly used in higher education institutions nowadays [5]. According to V. Kukharenko, this teaching model “is not only the use of technologies, which are to be matched by changes with learning cultural paradigm, that affects the educational process, as well as the application of various techniques, theoretical grounding and methods” [10].

The war subjected educational institutions of Ukraine to unprecedented challenges, which require new approaches to the training system in a whole. Saving the lives of students and teachers during artillery and rocket attacks being a crucial task, most educators confront the issues of limiting the number of classroom lessons. At the same time, accessibility and inclusiveness; individual techniques of the applicant's

learning, as well as implementation of dual education are under consideration [5]. Solution of these issues is impossible without large-scale application of online technologies and well-thought-out changes to theoretical and practical approaches in training organization and disciplines study.

The world's leading universities demonstrate that high quality education standards can be achieved due to competent use of online technologies and appropriate methods providing an effective combination of direct and indirect models of interaction between students and teachers in the form of mixed learning.

To implement mixed learning model at the university, a great importance is attached to the following essential prerequisites: willingness of teachers and/or students to evolve to a new type of education; readiness of educators to spend a lot of time and make great efforts to introduce a mixed learning format into the system of higher education, as well as the ability of the university governing body to provide financial support to structural and organizational changes required. Thus, financial, material and human resources are crucial for the successful implementation of mixed learning models [9].

It is essential to understand differences between the concepts of "distance" and "mixed" learning. Distance (or online) technologies are the basis for the interaction of the subjects of the educational process both in mixed and distance learning. As stated in the Law of Ukraine "On Education", indirect interaction of subjects by means of online technologies is crucial in distance learning. Mixed learning is regarded as an approach, a pedagogical and technological model, and a method that, alongside with online technologies, relies on direct interaction between students and teachers in the classroom environment.

Mixed learning is an approach (pedagogical and technological model, technique) that is based both on online technologies and direct "students-teacher" interaction in the classroom. Mere introduction of technologies into traditional teaching can make learning process more adapted to current requirements, though not much contributing to its effectiveness. The scientists regard this process as high-tech [8].

We agree with I. Kucherenko that effective use of mixed learning should be based on the technological proficiency of teachers, students, and educational institution, as well as on the thorough methodology of each discipline, choice of the most effective model of the educational process, projecting of the training scenario as the sequence of actions and experience the

student gains throughout the study course, together with detailed preparation and organization of not only classroom training but, primarily, of independent students' work [7]. Properly introduced mixed learning has been found to improve educational process essentially. Technological innovations provide availability of materials, support for the students along with improving learning process control and automating the teacher's work. Introduction of digital technologies makes teaching process mobile, differentiated and individual, meanwhile raising requirements to training standards of future specialists who are supposed to possess certain competences, to be fit for effective team work and to reveal activeness, responsibility, persistence, and creativity [3].

There is no universal model of mixed learning. However, there are factors affecting the choice of an effective model for a particular discipline: number of students in the group, year of study, minimal and maximal duration and periodicity of classes, and venue (classroom, laboratory, using the Internet or other computer network). Besides, when transitioning to the mixed learning general context should be taken into account (expectations from a program guarantee, department, faculty, university, professional community, society; whether a discipline theoretical or practical, etc.) [7]. In order to introduce an effective model of mixed learning, planning of the learning process should be regarded as a complex of interrelated types of students' learning activity.

When introducing mixed learning at the institutions of higher medical education, the teachers can base on H. Staker and M. Horn model typology, at the same time modifying and correcting it but preserving the empiric nature of the approach. Developed in 2012, H. Staker and M. Horn typology includes six models: "Face-to-Face Driver"; "Rotation"; "Flex"; "Online Lab"; "Self-blend"; "Online Driver" [15].

When choosing mixed learning as the basic form of organizing educational process, specifics of training medics and principal didactic peculiarities that make the method advantageous as compared to the other forms of educational process organization should be taken into account, namely: integration of didactic possibilities of traditional and electron forms of study and their optimal combination; possibility to use, in this or that version, at all education levels, for any profile, specialty, and trend of training; essential increase in possibilities for making educational process more personal and individual; increase in the students' motivation; individual students' work dominating in the

structure of educational process that contributes to the development of self-dependence in training and formation of skills providing possibility for self-education at the later life stages; a wide use of various interactive types of learning activities [2].

Principles of mixed learning are crucial for its introduction: flexibility and adaptivity; possibility of considering students' individual characteristics (variations of training material content, as well as of tempo and learning means); mobility (option of convenient time and venue of study); data protection (confidentiality of personal data, secure data transfer, etc.); economic efficacy (efficient use of training rooms and of material-technical base, etc.); use of specialized technologies and training means (distance interaction implies access to the Internet and special devices, such as computer, mobile phone, tablet, etc., as well as software) [11].

We are also aware of mixed learning drawbacks: dependence on the technical means of training; unpreparedness of teachers for the use of the method; a lot of time needed for preparation and placement of the material on the university educational platform; students do not readily get accustomed to regular distance work that may result in the falling behind in their studies; students are supposed to spend certain time for self-training that is unlikely taking into account low motivation and interest in learning. Mixed learning requires high educational self-motivation; the students are expected to be conscious, purposeful, and persistent enough. Besides, warfare in Ukraine is often associated with blackouts and Internet unavailability that makes problematic for the students both to connect to the classes and to do tasks. When switching to the mixed learning, mechanisms of studying the subject by the students and evaluation of their knowledge by the teachers, as well as possible technical problems should be taken into account.

Quarantine pandemic restrictions and outbreak of war in Ukraine required rapid adaptation of the traditional teaching methods to online technologies for effective formation of foreign language communicative competence. Studying of the methods and forms of teaching the disciplines "English for Specific Purposes" and "Latin Language and Medical Terminology" to medical students in the conditions of mixed learning is a current issue. This article analyzes the specifics of teaching these disciplines at the Department of Foreign Languages of I. Horbachevsky Ternopil National Medical University, that is synchronic and asynchronous forms of teaching because of pandemic and outbreak of war in Ukraine.

According to the Ministry of Education and Science recommendations, higher national educational institutions are given the opportunity to provide communication of educational process participants through the means included into the learning management system (LMS), e-mail, messengers (Viber, Telegram, et al.), video conferences (MS Teams, ZOOM, GoogleMeet, Skype, et al.), forums, chats, etc. [13] for maintaining continuity of education. MS Teams platform has been chosen by our University as a base for teaching in quarantine conditions on the basis of the University on the whole and, in wartime, at some departments. The MS Teams platform has revealed its simple and comfortable environment for teachers and students to establish and implement educational tasks.

For the purpose of improving educational process under conditions of mixed learning, the teachers of the Department of Foreign Languages of the University use distance learning technologies through MS Teams and Moodle platforms. For the students' convenience, Moodle platform contains necessary training material for each topic of a discipline studied (academic program, syllabi, materials for practical classes, educational videos and test tasks). Test tasks are developed in the Moodle system for each topic that contributes to more accurate assessment of the students' knowledge on the topic studied and to monitoring the progress in performing test tasks on separate topics and discipline sections, along with providing possibility for automatic evaluation of the results obtained. Students are ensured free access to training materials at a convenient time. The use of this platform provides clear "student-teacher" communication and requires high professional competence of teachers for proper provision of presented materials [12].

Aside from classes with students, MS Teams is used as an additional means of chat communication with a group or some students for specifying the topic studied. MS Teams webinars, meetings, discussions, and sessions for the University faculty are frequent, the program comprising chat, file exchange and application software, most of which can be adapted for learning [1]. Teams, video classes, forms, and tasks are the basic components of the platform. Let us consider the possibilities of platform components in detail (Table 1).

With above-mentioned interactive MS Teams platform technologies integrated into the process of teaching "English for Specific Purposes" and "Latin and Medical Terminology", maximum effective "teacher-

Table 1. Structural Components of MS Teams Information Platform

Teams	Teams in MS Teams platform enable to unite registered users into groups for working on joint projects, tasks and files. Distance and mixed teaching involves using teams as groups/classes of students in the specialties, the following types of teams included: class, professional educational community, staff, etc. As a team master, a teacher can modify information on it, add students, control events and video conferences, offer tasks, fix the team at the top position, as well as to create additional thematic channels (public or hidden)
Calling	The program provides audio-and video calls to a whole group or to any participant individually. A call can be planned as an event in the calendar (Meeting) or immediate, i.e., an organizer entering call mode and the participants are informed of the incoming call through the program. The teacher may use an interactive board supplemented by White board and OneNote for visual demonstration of theoretical and practical material
Forms	This MS Teams platform component is used for making various tests, profiles, questionnaires and is meant for prompt information gathering. Forms have a wide range of use. The teacher can make tests for routing testing of knowledge and skills, independent students' work, as well as for thematic and final control. Assessment process being almost fully automatic, the students can get their results immediately while the teacher receives statistic data about their progress in doing tasks
Assignments	Making an assignment in MS Teams provides maintaining students' motivation and discipline in the conditions of distance and mixed learning as the teacher sets criteria for work evaluation, as well as work delivery terms (possibly beyond the deadline). Besides, the teacher can assign team or individual work along with planning the assignment ahead and commenting each delivered work individually

students" communication is attained along with students' gaining program-provided general and special competences.

Conclusions and Prospects for Research. With all pros and cons, mixed learning has been found to provide continuous educational process during pandemic and in wartime. Transition to mixed learning at higher educational institutions necessitates implementation of teachers' professional competence along with finding the ability of educational process parties to self-organization and team work. Based on the analysis of scientific literature, challenges of introducing mixed learning into the educational process have been identified. No universal model of mixed learning in Ukraine has been found. However, there are the factors affecting the choice of an efficient model for a particular discipline and which are subject to changes in the process of learning (number of students in the group, year of study, minimal and maximal duration as well as periodicity of classes, training venues: classrooms, lecture halls, laboratory, online). To develop an effective model of mixed learning, discipline study planning should

be approached as a complex of interrelated types of students' learning activity. The main mission of the teacher in mixed learning is projecting the discipline as a sequence of actions and experience the student gains in the course of study.

Thus, introduction of mixed learning at higher medical institutions during pandemic and in war time has been found to provide continuous educational process, to speed up the development of online learning, and to assess the opportunities for the further use and improvement of mixed learning in the training of medical students. Application of available MSTEams corporative platform instruments in teaching medical students foreign languages with the use of up-to-date information and communication technologies has been found to provide continuous process of mixed learning for the further formation of professional communicative competences. Development of the assignment complex adapted to current realities of learning English for Specific Purposes and Latin for the students of medical specialties seems to be a promising trend for further research.

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