DISTANCE AND BLENDED LEARNING AS EFFECTIVE FOREIGN LANGUAGE TEACHING TECHNOLOGIES UNDER MARTIAL LAW

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The article is devoted to the analysis of distance and blended learning technologies in foreign language teaching under martial law. The essence of the concepts "distance learning" and "blended learning" is revealed. The modes of work in distance learning (synchronous and asynchronous) and the models of conducting classes in blended learning (rotation model, flex model, self-blend model and enriched virtual model) are described. It is emphasized that distance and blended learning, as new technologies, cannot be used constantly. It is advisable to introduce a flexible schedule of using distance and blended learning, taking into account the current situation in Ukraine. In addition, the article analyses the issue of optimizing interaction between teachers and students after Russia's invasion of Ukraine and introducing martial law, which is currently the main reason for the necessity of using distance or blended learning in all educational institutions of Ukraine. It is shown that the opportunities of distance and blended learning enable the student and the teacher to receive and share information, control students' educational activities, establish contacts with colleagues, as well as additionally solve complex questions and problems that may arise in the learning process. The authors reveal the difficulties that arise in the educational process under martial law, analyze and justify the expediency and effectiveness of using different models of distance and blended learning in teaching foreign languages, taking into account the above-mentioned difficulties. It is proved that the most optimal models of blended learning for teaching foreign languages under martial law are the rotation model (a subtype "flipped classroom"), the flex model, and the self-blend model.

Keywords: *distance learning, blended learning, foreign language, student of higher education, martial law, information and communication technologies, independent work.*

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ДИСТАНЦІЙНЕ ТА ЗМІШАНЕ НАВЧАННЯ ЯК ЕФЕКТИВНІ ТЕХНОЛОГІЇ ВИКЛАДАННЯ ІНОЗЕМНОЇ МОВИ В УМОВАХ ВОЄННОГО СТАНУ

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Стаття присвячена аналізу технологій дистанційного та змішаного навчання при викладанні іноземної мови в умовах воєнного стану. Розкрито сутність понять "дистанційне навчання" та "змішане навчання", описано режими роботи при дистанційному навчанні (синхронний та асинхронний) і моделі проведення занять при змішаній формі навчання (ротаційна модель, гнучка модель особистісно-орієнтована модель і модель збагаченого віртуального середовища). Наголошено, що дистанційне та змішане навчання як достатньо нові технології не можуть використовуватися постійно. Має бути можливість запровадження гнучкого графіку застосування технологій дистанційного та змішаного навчання з урахуванням ситуації, яка на сьогоднішній день є в Україні. Додатково розкривається питання оптимізації взаємодії викладача зі студентами після вторгнення Росії до України і впровадження воєнного стану, що на сьогоднішній день є головною причиною необхідності проведення дистанційного або змішаного типу навчання у всіх навчальних закладах України. Показано, що саме можливості дистанційного та змішаного навчання дають змогу студенту та викладачу отримувати інформацію та обмінюватися нею, здійснювати контроль навчальної діяльності студентів, налагоджувати контакти з колегами, а також додатково вирішувати складні питання і задачі, що можуть виникнути у процесі навчання. Автори розкривають труднощі, які виникають у процесі навчання в умовах воєнного стану, аналізують та обґрунтовують доцільність та ефективність використання різних моделей дистанційного та змішаного навчання при викладанні іноземної мови, враховуючи вищезазначені труднощі. Доведено, що найбільш оптимальними моделями змішаного навчання для навчання іноземних мов в умовах воєнного стану є ротаційна модель (підвид "перевернутий клас"), гнучка модель та особистісно-орієнтована модель.

Ключові слова: *дистанційне навчання, змішане навчання, іноземна мова, здобувач вищої освіти, воєнний стан, інформаційно-комунікаційні технології, самостійна робота.*

Introduction of the issue. In recent times, the education system has undergone significant changes in its development and implementation of various technologies for teaching various disciplines. Due to the sharp aggravation of the epidemiological situation, namely COVID-19 in 2020, the ability to support modern video communication was implemented in absolutely all programs that were supported by standard platforms and operating systems. The latest system of digitization of education was developed, which contributed to the continuity of the educational process and ensured quality education, despite the difficulties and limitations associated with the pandemic. In Ukraine, the digitization of the educational process gained its relevance not only during the spread of COVID-19 but also after the full-scale invasion of Russia to the territory of Ukraine on February 24, 2022. Distance and blended learning technologies have developed rapidly, and the educational process has adapted to the distance format. This format made it possible to protect people not only from diseases but also from the threat of rocket fire. With the introduction of distance and blended forms of education and providing students and teachers with methodological materials in an electronic format, the possibilities of continuity of the educational process have improved significantly, and gradually the need to be physically present at the educational institution has been reduced to a minimum. Therefore, distance education should be considered as an alternative way of carrying out the educational process, as there are good reasons for using distance education as a means of protecting people from possible external factors of danger, which currently has the highest level.

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It should be noted that the excessive use of the opportunities of information and communication technologies almost leaves no possibility of physical contact with students and full live communication with colleagues. Besides, not every student has the opportunity to study the educational material independently and effectively in the distance-learning mode. In this case, blended learning plays the significant role, which involves the use of both distance format of teaching and conducting classes in the premises of educational institutions.

The introduction of martial law caused difficulties in teaching foreign languages since mastering a foreign language is impossible without live communication and the use of interactive forms of work, which are more convenient to conduct in the classroom. Besides, the distance form of learning significantly limits the teacher in choosing means and methods of working with students. That is why the analysis of the possibilities of distance and blended learning in teaching a foreign language under martial law is relevant and requires further research.

Current state of the issue. Theoretical and practical aspects of the application of distance and blended learning technologies are highlighted in the works of N.V. Morze, O.H. Kuzminska, O.V. Ihnatenko, N.R. Balyk, N. Dementiievska, M.S. Nikitina, O.O. Rafalska, O.M. Kryvonos, N.V. Rashevska, D. Painter, C. Graham, R. Shank, H. Striker and others. The problem of using distance and blended learning in the process of training future specialists was dealt with by such scientists as Yu.V. Tryus, V.Yu. Bykov, V.M. Kukharenko, S.O. Semerikov, N.H. Syrotenko, V.M. Franchuk, I.V. Herasymenko, Ye.M. Smirnova-Trybulska, A.M. Striuk, etc. K. Osadcha, S. Voloshyna, S. Symonenko and other scientists devoted their works to the use of distance education in conditions of quarantine restrictions during the COVID-19 pandemic. Theoretical and methodological views on the problem of implementing the educational process in quarantine conditions were outlined in the monograph of V. Kukharenko and V. Bondarenko (2020) "Emergency Distance Learning in Ukraine" [1], which highlighted the prospects for obtaining quality education in pandemic conditions through the introduction of remote and blended education in the country. The use of blended learning technology in the process of teaching foreign languages is described in the works of L.V. Kalinina, K.A. Lisetskyi, O.A. Kuzmenko, V.Yu. Vechkanova, T.A. Bereziuk, V. Chorna, O.D. Bezverkha, D.R. Antoniuk, B. Greenberg, K. Christensen, R. Schwartz, M. Horn and others. However, in our opinion, some aspects of the use of distance and blended learning in teaching foreign languages under martial law are insufficiently covered.

Outline of unresolved issues brought up in the article. The range of tasks and issues raised by the above-mentioned authors is wide enough for consideration and needs a deeper study taking into account the present situation, when a person cannot plan or predict the necessary actions due to the limitations associated with the war.

Aim of research is to consider the main possibilities of using distance and blended learning in teaching a foreign language under martial law. The realization of this aim involves solving the following tasks: 1) analyzing the concepts of "distance learning" and "blended learning", showing the advantages and disadvantages of these technologies; 2) describing the modes of work in distance learning and the models of conducting classes in blended learning; 3) revealing the peculiarities of the educational process under martial law; 4) analyzing and justifying the expediency and effectiveness of using different models of distance and blended learning while teaching a foreign language under martial law.

Results and discussion. First of all, let's compare the concepts of "distance learning" and "blended learning".

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Distance learning is a set of information technologies and teaching methods that provide for the acquisition of education without the physical presence of learners in an educational institution [2: 88]. Blended learning is a technology that is based on the combination of traditional forms of teaching and online technologies, combining the efficiency and prospects of socialization in the classroom with the opportunities of teaching online. It is a concept in which using informational and educational resources in off-line training takes place with the use of asynchronous and synchronous elements of electronic learning [3: 149]. Thus, distance learning is completely carried out remotely with the use of information and communication technologies, while in blended learning the part of the educational material is studied in the classroom.

Recently, the need for computer technologies in the field of education has grown significantly in Ukraine. ICT greatly facilitate the educational process and contribute to the digitization of textbooks and various educational materials. Digitization has been developed not only in higher educational institutions but also in primary educational structures. The use of computer tablets significantly improves the child's imagination and thinking while a pupil tries to draw something using a computer program, colour a picture, find a hidden object playing his/her favorite computer game, etc. The main aim of using ICT for educational purposes is not only the elimination of difficulties in the process of obtaining education but also the use of additional opportunities for the child's development at the technological level.

Thus, ICT is a powerful tool even in peacetime but in wartime the role of distance and blended learning is growing significantly. Considering the ordinary day of a Ukrainian family, it should be noted that any activity or work can be interrupted due to the threat of rocket attacks or power outages. The full-scale invasion of Russia to the territory of Ukraine created such conditions in some regions that made it impossible not only to study in the classrooms of educational institutions but also limited the possibility of conducting classes online due to the lack of electricity and the Internet. Many students were forced to go abroad, some students moved to safer regions of Ukraine. For some students it was difficult to continue their studies because they were in the occupied territory or in a region where there was not enough technical support.

One of the main factors that causes inconvenience in learning and can also interrupt the educational process is air raids, during which it is necessary to be in a bomb shelter. As practice shows, conducting classes in a bomb shelter is not always effective since the teacher and the students are in a rather noisy room, which is not adapted to the modern educational process and to the work modes that involve communication or interaction between the teacher and the students. In addition, shelters are often located in such premises where there is no communication or Internet, which greatly complicates the implementation of the educational process. Therefore, a teacher who conducts lessons in the classroom should be ready for air raid sirens and plan the lessons in such a way that they could be held in a bomb shelter. In addition, special attention should be paid to the evaluation methods of students, especially during an air raid if the educational process has been interrupted.

Mass power outages also play a negative role since the students' ability to join a conference in Zoom or Google Meet is minimized. If the students are located in different regions, the situation may be different as the outage schedule may also be different, and it is impossible to predict it. In such conditions it is very difficult to plan one's time, to get necessary information connected with studying and performing tasks, especially in the conditions of a complete blackout during a long period of time. After the onset of mass

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blackouts, air strikes and various factors that make a stable process of education impossible, the amount of students' creative tasks (presentations, reports and essays) has increased. So, the increase in the percentage of independent and creative work is explained by the limited availability of online classes and the need to evaluate students' works in extreme conditions.

So, the war in Ukraine changed the lives of many people both in Ukraine and abroad. On the one hand, the forced introduction of distance and blended learning increased the need for the development and use of information and communication technologies. Large IT companies engaged in software development began to adapt to external factors connected with the Russian invasion as it was during COVID-19 pandemic. Wide attention was paid to the problems of video communication, which provided the possibility of using computer programs for communication and information exchange. The use of software that provide high-quality video communication allows not only to receive appropriate materials from the teacher but also evaluate the students' knowledge and skills and analyze the general mood and atmosphere in a class or a group. On the other hand, the teacher must revise the methods and forms of work taking into account the difficulties and unforeseen situations described above. Such revision will help the teacher to adapt to specific conditions and choose the optimal mode of teaching depending on the situation. Let's take a closer look at distance and blended learning models and analyze which of these models are more appropriate for teaching foreign languages under martial law.

There are two *modes of distance learning:* 1) synchronous, when all participants of the educational process are in the web environment at the same time; 2) asynchronous, in which the educational process is carried out according to a schedule convenient for teachers and students [2: 90-91]. If the majority of participants in the educational process have access to high-quality Internet, can connect to online conferences in Zoom or Google Meet and have no communication problems, the teacher can work in a synchronous mode. This mode is the most convenient and effective for foreign language communication, including teaching different aspects of the language (vocabulary, grammar, phonetics) and different types of speech activities, especially listening, reading and speaking. Teaching writing in synchronous working mode is less convenient, in our opinion, but the teacher can use such tools of the Zoom platform as the Whiteboard, comments and chat, as well as Google products (Google Docs, Google Sheets, Google Slides, Google Forms, Google Jam board, etc.), which provide an opportunity to perform written tasks for all members of the group both in real time and asynchronously. In case of impossibility of conducting synchronous training due to the technical difficulties, the teacher should choose software that will make it possible to effectively carry out the training process in asynchronous mode, for example, social networks (Instagram, Facebook, Telegram, Viber, etc.), E-mail, platforms for the development of online courses (Moodle, Easy generator, etc.), Google applications (Google Classroom, Google Keep, Google Drive, Google Docs, Google Sheets, Google Slides, Google Forms, Google Jam board, Google Sites, Google Tasks, Blogger, etc.). These tools allow not only to download educational materials but also to communicate, set tasks and perform formal and informal assessment. Using these tools, students can familiarize themselves with the learning materials and perform tasks at a convenient time, and the teacher has the opportunity to evaluate students' skills in almost all types of speech activity. In our opinion, the disadvantage of the asynchronous mode while learning a foreign language is the difficulty of learning and evaluating speaking skills (especially dialogical skills) that involves communication and reaction to the interlocutors' phrases in real time.

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Let's consider the ways of teaching foreign languages using blended learning technology. Having analyzed research related to blended learning models, we note that most researchers single out *4 main blended learning models:* 1) rotation model, which can be subdivided into station rotation model, lab rotation model, flipped classroom model and individual rotation model; 2) flex model; 3) self-blend model or A La Carte model; 4) enriched virtual model [2-6]. Let's consider and analyze the above-mentioned models from the point of view of their effectiveness and optimality for teaching foreign languages under martial law.

Rotation model is a model of blended learning in which students move according to a set schedule or combine different learning formats, one of which is distance learning. Other formats may include small group work, face-to-face work, group and individual consultations, written assignments, etc. Students study mainly in the buildings of an educational institution but also do some homework at home. *Station rotation* is a course or class organization model, in which students move between different locations within one classroom or several classrooms in fixed periods of time. Moreover, one of the stations must include some activities online. Station rotation differs from *individual rotation* in the fact that students must attend all stations, not just those that are set by their individual schedule. *Lab rotation* is a course or activity, in which students move to a computer lab and study there independently online. *Flipped classroom* is a model of blended learning, in which students study theoretical material at home remotely instead of traditional homework and then do practical tasks or work on projects in the classroom under the teacher's guidance. At the same time, most of the material is learned remotely, which distinguishes the flipped classroom model from simply doing homework online [6: 123-124]. Thus, station rotation, lab rotation and individual rotation models require availability of the Internet connection and several computers in one or more classrooms. Besides, lab rotation model implies moving students around various classrooms that creates difficulties, especially in case of an air raid siren when the teacher should quickly turn off all computers, close the classrooms and evacuate students from different locations in the campus. Therefore, based on the characteristics of each model, we suppose that the most optimal model of teaching under martial law is flipped classroom because students study the didactic material independently in advance, but in the classroom, they only discuss it with the teacher and classmates and clarify unclear issues. It is also very important that the presence of the Internet and computers in the classroom is optional. If there is an air raid siren during the class, the students will be able to discuss the material in the bomb shelter even without Internet connection since most of the material was processed beforehand or downloaded on students' mobile devices. The sample of using flipped classroom model while teaching the subject "English for Specific Purposes" to students of the specialty 013 "Primary Education" of Zhytomyr Ivan Franko State University was shown in our previous publications [7: 281-283].

Flex model is a model where distance learning is the main mode of teaching, but it is combined with some face-to-face meetings. Students work according to an individual schedule, and the teacher accompanies each student remotely and organizes face-to-face consultations with small groups or individually [6: 124]. In our opinion, this model is convenient during martial law, especially for working with small groups, correspondence students and students who have an individual schedule. As for teaching a foreign language to large groups of full-time students, this model does not allow to fulfil full-fledged foreign language communication and can be used in certain cases, for example, under massive air attacks, when face-to-face teaching is at risk.

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Self-blend model or A La Carte model is a model of blended learning, which involves attending traditional classes along with taking one or more distance courses on individual topics chosen by the students. As a rule, it is used when it is necessary to add some optional topics to the program topics in the form of distance courses that are available on the Internet or developed by the teacher [5: 154]. Such a model is convenient and effective for learning a foreign language under martial law as it minimizes technical difficulties, allows students to work individually on additional topics that interest them, does not exclude face-to-face learning and meets the principles of learning autonomy.

Enriched virtual model is a model of blended learning, in which students divide their time between attending an educational institution and studying remotely. This model differs from the flipped classroom in the fact that students rarely attend campus [6: 125]. The model is optimal for those students who have to study at home. It will be especially effective for students with special needs [5: 154]. It should be added that under martial law this model is convenient for those students who are abroad or live in occupied territories, but it is not optimal for those students who have the opportunity to attend a university and are interested in live communication in a foreign language with teachers and groupmates.

Conclusions and research perspectives. Therefore, considering the expediency of using distance and blended learning, it should be noted that these technologies are an additional tool of optimizing the educational process both in peaceful time and especially during various cataclysms, such as epidemics, wars, etc. The possibilities of distance and blended learning with the use of ICT significantly simplify obtaining secondary and higher education and allow to adapt to new realities under martial law.

While teaching foreign languages, distance learning can be carried out both synchronously and asynchronously when face-to-face communication is impossible. The mode of teaching is chosen depending on technical factors, the location of students and teachers, specific educational goals, etc. Blended learning, which combines the forms and methods of distance and face-to-face learning, is considered by us as the most effective and flexible form of the educational process while teaching foreign languages. During the war, opportunities for the physical presence of students and teachers in the educational institution may be limited, and there is a high probability of interrupting the educational process due to air raids. Taking into consideration these factors, the most optimal models of blended learning for teaching foreign languages are the rotation model (a subtype "flipped classroom"), the flex model, and the self-blend model.

This article does not cover all aspects related to the use of distance and blended learning technologies in teaching foreign languages under martial law. The prospects for further research are the following:

1) generalization of the problems that may arise in the process of distance and blended learning under martial law and the ways of solving them;

2) selection of ICT tools that are the most optimal for learning a foreign language under martial law;

3) creation of a system of exercises for teaching a foreign language using different modes of work and models in the process of using distance and blended learning technologies.

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