

Viktoriia LEMESHCHENKO-LAGODA,

orcid.org/0000-0002-1080-5510

*Senior Lecturer at the Department of Foreign Languages
Dmytro Motornyi Tavria State Agrotechnological University
(Zaporizhzhia, Ukraine) viktoriia.lemeshchenko@gmail.com*

Iryna KRYVONOS,

orcid.org/0000-0001-7079-5150

*Senior Lecturer at the Department of Foreign Languages
Dmytro Motornyi Tavria State Agrotechnological University
(Zaporizhzhia, Ukraine) iryna.a.krivonos@gmail.com*

ADAPTATION OF EDUCATION IN THE CONTEXT OF CONFLICT: THE CASE OF FOREIGN LANGUAGE EDUCATION IN THE OCCUPIED TERRITORIES OF UKRAINE

War and conflict have a direct impact on education at all levels, causing physical harm to students, teachers, their families and communities as a whole, causing displacement and psychological stress. Educational facilities are damaged and destroyed, and educational activities are disrupted, limiting (or makes it impossible) to access quality education. The main priorities are to ensure the safety of students and teachers, as well as to preserve the quality of the educational process. This requires flexibility in teaching methods, the use of digital technologies and the development of specialised courses that take into account the specifics of wartime.

The full-scale Russia-Ukraine war affects all spheres of life, and the sphere of education is not an exception. The article considered the peculiarities of foreign language training of students at the higher education institution in the occupied territories during the war time in Ukraine. It is emphasized that the existing distance methods and means of teaching foreign languages used before the beginning of war were partially applicable due to the lack of the Internet and mobile connection, constant shelling, etc. The efficiency of the particular education tools was analyzed in the survey. It was noted that some students had access to more than one device while others had none. Limited access to the educational tools and therefore resources had an impact on the students' achievements which significantly declined in comparison with the first semester before the war.

The special questionnaire on problems that students faced since February 24, 2022 was developed and an additional survey among the students to determine the real reasons for the drop in academic performance was conducted. All the stated problems could be divided into 4 groups: technological, educational, psychological and personal ones. Nearly all interviewed experienced a mix of the problems and at the same time almost one fifth of students pointed out that study helped them to distract from what was happening around and feel some kind of relief or even relaxation. The teachers tried to help their students to maintain mental and physical health and performance in difficult, unpredictable circumstances, to overcome such situations without persistent disorders, with successful adaptation to adverse changes.

Key words: *foreign languages, distance learning, ICT, MOODLE, ZOOM, social networks, education in the occupied territories, war in Ukraine.*

Вікторія ЛЕМЕЩЕНКО-ЛАГОДА,

orcid.org/0000-0002-1080-5510

*старший викладач кафедри іноземних мов
Таврійського державного агротехнологічного університету імені Дмитра Моторного
(Запоріжжя, Україна) viktoriia.lemeshchenko@gmail.com*

Ірина КРИВОНОС,

orcid.org/0000-0001-7079-5150

*старший викладач кафедри іноземних мов
Таврійського державного агротехнологічного університету імені Дмитра Моторного
(Запоріжжя, Україна) iryna.a.krivonos@gmail.com*

АДАПТАЦІЯ ОСВІТИ В УМОВАХ КОНФЛІКТУ: ПРИКЛАД ІНШОМОВНОЇ ОСВІТИ НА ОКУПОВАНИХ ТЕРИТОРІЯХ УКРАЇНИ

Безпосередній вплив на освіту на всіх рівнях має воєнні події і конфлікти, завдаючи фізичної шкоди здобувачам вищої освіти, викладачам, їхнім сім'ям і громадам в цілому, спричиняючи переміщення і психологічний стрес.

Навчальні заклади пошкоджуються та руйнуються, а освітня діяльність переривається, що обмежує (або унеможлиблює) доступ до якісної освіти. Основними пріоритетами є забезпечення безпеки студентів і викладачів, а також збереження якості освітнього процесу. Це вимагає гнучкості методів викладання, використання цифрових технологій та розробки спеціалізованих курсів, що враховують специфіку воєнного часу.

Повномасштабна російсько-українська війна впливає на всі сфери життя, не є винятком і сфера освіти. У статті розглядаються особливості іншомовної підготовки студентів у вищому навчальному закладі на окупованих територіях у воєнний час в Україні. Підкреслено, що існуючі дистанційні методи та засоби навчання іноземних мов, які використовувалися до початку війни, були частково застосовні через відсутність Інтернету та мобільного зв'язку, постійних обстрілів тощо. В опитуванні було проаналізовано ефективність конкретних освітніх інструментів. Було відзначено, що деякі студенти мали доступ до більш ніж одного пристрою, тоді як інші не мали жодного. Обмежений доступ до освітніх інструментів, а отже, і до ресурсів, вплинув на успішність здобувачів вищої освіти, яка значно знизилася порівняно з першим семестром довоєнного періоду. Було розроблено спеціальну анкету щодо проблем, з якими зіткнулися студенти, починаючи з 24 лютого 2022 року, та проведено додаткове опитування серед студентів для визначення реальних причин падіння успішності. Усі зазначені проблеми можна поділити на 4 групи: технологічні, навчальні, психологічні та особистісні. Майже всі опитані відчували поєднання цих проблем, і водночас майже п'ята частина студентів зазначила, що навчання допомагало їм відволіктися від того, що відбувається навколо, і відчувати певне полегшення або навіть розслаблення. Викладачі намагалися допомогти своїм студентам зберегти психічне і фізичне здоров'я та працездатність у складних, непередбачуваних обставинах, вийти з таких ситуацій без стійких розладів, з успішною адаптацією до несприятливих змін навкруги.

***Ключові слова:** іноземні мови, дистанційне навчання, ІКТ, MOODLE, ZOOM, соціальні мережі, освіта на окупованих територіях, війна в Україні.*

Introduction. On February 24, a full-scale invasion of Russian Federation on the territory of Ukraine began, which fundamentally changed the lives of Ukrainians, affecting every sphere of human activity without exception. To date, fierce battles have been continuing in the southern and eastern parts of Ukraine, and cities located at a relative distance from the front line have been suffering from constant artillery shelling. The education system is one of those spheres that felt the negative impact of military actions the most. 2200 institutions of secondary education were damaged, 5 institutions of higher education were completely destroyed, 16 institutions of higher education and more than 20 colleges were relocated to other cities. Thousands of schoolchildren and students became forced internally displaced people.

Problem Statement. Dmytro Motornyi Tavria State Agrotechnological University (TSATU) was located in the city of Melitopol, Zaporizhzhia Region. By the end of February 2022, Melitopol had been already occupied by Russian troops. Teaching staff lost the opportunity to teach safely in the classrooms of the institution, students – to gain knowledge, prepare for exams and obtain qualifications in their alma mater. In the conditions of hostilities and a constant threat to the lives and health of both students and teachers, the university administration made a decision to continue the educational process remotely via distance learning tools. However, new difficulties arose as a result of the occupation of the city, the strengthening of disinformation Russian propaganda, which manifested itself in numerous technical obstacles that hindered the continuation of the active educational process.

Analysis of research publications on the topic.

Features of remote teaching and the role of the Information and communication technology (ICT) in higher education institutions were revealed in a number of publications by domestic and foreign authors. It is also noted that amid the previous 20 years, the utilization of ICT has generally changed the working of education training. In the present condition conscious world, the significance of education and adequacy of ICT as a social need has been expanding (Baumann, 2008: 372). Being oriented on the development of the creative potential of students, the ICT influence goals, learning content, teaching forms and methods as well as cooperation of teachers and students providing development of students' information literacy, skills of processing information, creation and joining ideas into new combinations and transferring them to different situations to provide students' preparedness for the innovative activity (Dahiya, 2018).

At the beginning of 2020 due to COVID-19 pandemic practical classes had to be transferred to a digital format. This change also affected education systems worldwide very quickly. The barrier of the lockdown has accelerated the adoption of digital technology (Ekmekçi, 2015: 392). Therefore all students had to master their knowledge and be controlled during the video sessions or online classes. Speaking about the process of implementation of distance learning methods into the process of teaching and learning foreign languages a lot of scholars stress that the application of distance learning systems to foreign language teaching is a great challenge (Konovalenko, Nadolska, 2020), (Lemeshchenko-Lagoda, 2020).

Considering the process of teaching foreign languages in a higher educational institution Symonenko S., Zaitseva N., Titova O. and Vynogradova M. (Symonenko, 2019) mentioned that an ability to communicate in a foreign language both verbally and in writing, an ability to conduct the theoretical and applied research at the appropriate level, an ability to motivate people and move towards a common goal, to work in a team and an ability to communicate with representatives of other professional groups at different levels (with experts from other fields of knowledge or types of economic activities) are crucial ones.

In such situation teachers should be undoubtedly engaged in mastering the following learning resources:

1) informal educational environments (social networks, messengers and chatbots, using cloud-based video conferencing services);

2) distant learning platforms (Moodle, Canvas LMS or LearnDash);

3) virtual reality environments (Mondly, Jigspace VR, Samsung VR);

4) artificial intelligence applications (ELSA (the English language proficiency app), Socratic by Google, Glossika), etc. (Sampson, 2003).

All these factors determine the relevance of this research, which comprises the collection of data and the development of recommendations regarding the organization of the educational process, namely the study of foreign languages in higher education institutions in the existing conditions of the state of war.

The aim of the article is to analyze the expediency and effectiveness of using existing distance methods of foreign languages teaching in the conditions of active military operations and the occupation regime in the city.

The main objectives of the research are:

– to characterize and generalize the existing distance methods and tools of foreign languages teaching, which were used before the start of hostilities;

– to describe the difficulties and obstacles to the use of the mentioned methods and tools that arose as a result of military aggression in the region;

– to analyze the changes in students' achievements during the study of the discipline "Foreign language for specific purpose" and characterize their causes.

In this research authors used mixed-method methodology which is represented by the combination of qualitative, quantitative, descriptive and non-experimental research methodologies.

Presentation of the Main Material. Distance education makes new demands on teachers, including improving professionalism, increasing the level of professional competence, mastering

modern technologies, and the ability to use them in the educational process (Shalatska, 2019). TSATU teaching staff considered many options for video conference platforms, learning platforms, virtual spaces and various means of distance communication to choose the best communication software for distance learning. For the teachers of the Department of Foreign languages of TSATU, the ZOOM conferencing tool turned out to be the most convenient for conducting video conferences because it doesn't require any email registration for users and can be used without installing via the web. ZOOM made it possible to have high-quality video and audio communication even with slow Internet.

The next technology which is used for distance learning in our university is the distance learning environment MOODLE. The MOODLE system is focused on cooperation and interaction between the teacher and the student during the classroom and extracurricular activities for the joint implementation of educational tasks (Sharov, 2021: 1887).

The large-scale implementation of this system in the educational process of TSATU began in 2014–2015 and it has been updated in 2020. Onto the Educational Portal (the name of the MOODLE LMS at TSATU) (www.op.tsatu.edu.ua, www.tsatu.edu.ua/im) teachers uploaded the content of practical classes, instructions for completing tasks, additional study material, shared video and audio material. Students were offered to study, consolidate, review the material, complete written tasks for practical classes, pass tests, write final control papers and upload them (Sorokina, Krasnova, 2021). Optionally, the teacher can fix student's contact information as well as start a chat where students can discuss with this teacher a question of concern. One additional advantage is that the platform is optimized for mobile devices, which increases convenience and mobility. The student can read material or perform tests at anytime and anywhere and it sometimes helps in critical situations when access to a computer may not be available.

Social networks, virtual communities and virtual environments were also used to enhance communication during learning and working processes. Undoubtedly, virtual communities have a huge potential in student learning, because they attract students with ease of use, the ability to choose the pace and the content of learning, the ability to participate in the formation of the learning content, and the feedback presence from community members (Symonenko, 2019: 228). Thus, nontraditional learning environments such as phone-based instruction, teleconferencing, and chat rooms also afford ample opportunities for collaborative work with the concomitant benefits for the language

learning process (Symonenko, 2021). Also some additional inconveniences for teachers like to find the personal students' numbers, create group chats to connect with the whole group or individually with every student, etc. can appear.

Results. With the beginning of Russia's full-scale aggression in Ukraine and the occupation of the territories in a little period of time it was understood that even the well configured system of distance learning, which could be used in such circumstances, wasn't appropriate and needed fast changes. On the first days the Russian militaries made attempts to destroy all communication points in order to shut down the Internet for most of the country. Since February 24, all interruptions in the work of the telecommunications infrastructure in the occupied territories were the result of three aspects: deliberate suppression of radio signals (cellular network) in a limited area during the movement of a significant amount of military equipment and personnel of the Russian Armed Forces for the impossibility of operational transmission of this information by residents to the Armed Forces of Ukraine; damage to main traffic transmission channels during armed confrontation and artillery shelling; the Russian Federation deliberately turned off mobile communications and the Internet for the occupied territories.

When some communication channels were damaged, as a result of shelling, traffic was redirected through the remaining ones, but this redundancy is not infinite either, especially against the background of the impossibility of carrying out repair work on damaged lines. As a result, those who stayed in the territories temporarily occupied by Russian troops received low-speed Internet, and those who lived in remote areas (small villages, etc.) were left without Internet connection at all.

Therefore, the specifics of distance learning during military operations influenced the methods of selection and structuring of content,

the implementation of certain methods and organizational forms of learning, which significantly affected the functioning of the entire education system. The most important criteria for choosing tools for the organization of distance learning during military operations in the territories where our students lived, was the versatility, productivity, low internet usage and methodological correspondence to the set methodical goals.

Taking into account all the peculiarities of the situation on the occupied territories and developed criteria it was clear that the students could be limited in using some tools, such as ZOOM-conferences and the Educational Portal of the Moodle system. Instead we could offer them to use e-mail, social networks, instant messaging services and mobile applications Viber, Telegram.

To analyze the efficiency of the chosen education tools the survey was conducted in 5 groups with the number of students from 15 to 25 in each. The total number of students engaged in the survey was 120.

It was taken as granted that all the students had access to all mentioned tools in the first semester. The analysis of the accessibility to the education tools in the second semester was conducted via students interviewing and personal teachers' observations and is shown in the table 1.

At the same time it was observed that some students had access to more than one tool or did not have any at all – Figure 1.

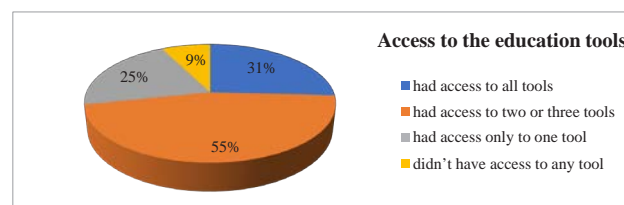


Fig. 1. Students' access to the education tools

Table 1

Amount of students who had access to the various distance tools in the first and the second semesters of the 2021–2022 academic year

| Tools | Zoom | | Moodle | | Social networks | | E-mail | |
|--------------------|----------------|-----------------|----------------|-----------------|-----------------|-----------------|----------------|-----------------|
| | first semester | second semester | first semester | second semester | first semester | second semester | first semester | second semester |
| Number of students | 120 | 31 | 120 | 44 | 120 | 109 | 120 | 73 |

Table 2

The academic students' achievements at the end of the first and second semesters of the 2021–2022 academic year

| Grade | A | | B | | C | | D | | E | | FX | |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 1st | 2nd | 1st | 2nd | 1st | 2nd | 1st | 2nd | 1st | 2nd | 1st | 2nd |
| Number of students | 17 | 12 | 28 | 20 | 37 | 32 | 19 | 27 | 19 | 20 | 0 | 9 |

As it is indicated in the table 2 and Figure 2, limited access to the educational tools and therefore resources had an impact on the students' achievements at the end of the second term.

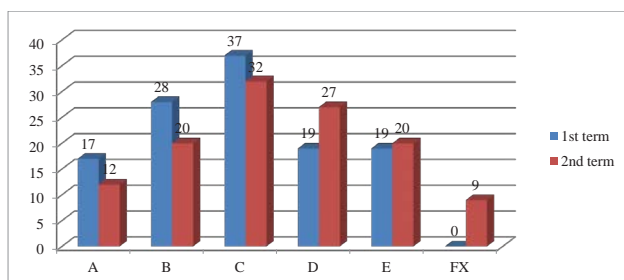


Fig. 2. Comparison of the students' academic achievements at the end of the first and second semesters

The data presented in the table and on the graph indicate a significant decline in student academic achievements in the second semester. The number of students who, according to the results of the first semester, had the A grades – 17 students, B – 28 students and C – 37 students, had decreased to 12, 20 and 32 respectively, while the number of students who had the D, E grades – 19 students each had increased to 27 and 20 respectively. Moreover, some students didn't have any possibility to attend online lessons or use any other educational objects and gained grades lower than 60 points (FX – level).

To determine the real reasons for the drop in academic performance (technological, psychological,

| Technological problems | 2 | 3 | 5 |
|---|---|---|---|
| I have a poor Internet access | | | |
| I experience frequent outages of the electricity supply | | | |
| My device is damaged | | | |
| I cannot use all the tools | | | |
| I don't have enough free space in the house for productive learning | | | |
| Educational problems | 2 | 3 | 5 |
| I do not understand the topic | | | |
| I miss lessons because of the war | | | |
| I cannot open the files on my device | | | |
| I have a lack of educational materials (textbooks, Student Book, Activity Book, etc.) | | | |
| I cannot contact teachers | | | |
| Psychological problems | 2 | 3 | 5 |
| I feel myself very depressed | | | |
| The level of stress is very high | | | |
| I have a lot of worries and negative thoughts | | | |
| I cannot concentrate and remember things | | | |
| I am not certain about the future and this distracts me | | | |

Fig. 3. The questionnaire for students

personal ones, etc.), we developed a questionnaire, presented in the Figure 3, and conducted an additional survey among the students, the results of which are shown in the Figure 4. The questionnaire consisted of two parts – the first one (obligatory) had several statements that had to be graded from 0 to 5 points regarding the relevance of each, and the second part (optional) was for specifying the reasons that were not included in the questionnaire.

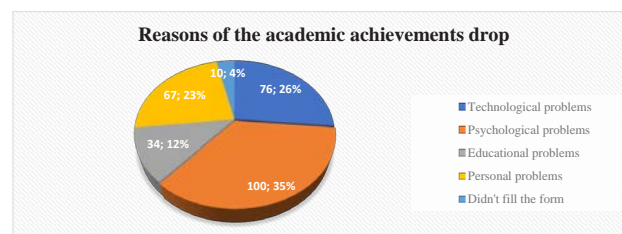


Fig. 4. Reasons of the academic achievements drop

Among the most common technological issues there were: internet connection problems; poor or absent mobile connection; the absence of the sufficient technical equipment; the electricity problems or absence. The students have highlighted only one educational issue – missing the lesson and therefore absence of clear understanding of the topic. Among the surveyed students such psychological issues were pointed out: increased level of stress, anxiety and depression; impaired concentration of attention, memory, logic and speed of thinking; uncertainty of the future and lack of control over the situation.

In the questionnaires the students specified various personal issues, but the most common were: the necessity to hide for a long periods of time in the bomb shelters or cellars; active hostilities are taking place near the place of living; forced emigration abroad and problems connected with it (accommodation, finance, adaptation, etc.). More than 80% of the students experienced a mix of the problems and at the same time nearly 47% stressed that study helped them to distract from what was happening around and feel some kind of relief (14%) and even relaxation (7%).

Around 10% of the students didn't fill in the questionnaire. They got in touch only once or twice, or asked their fellow students to tell teachers that they did not have the opportunity to attend classes and study the material because of the problems that were listed above or the military service.

The obtained results indicated the need to provide further recommendations to the students regarding the improvement of their knowledge and skills of a foreign language, improving the level of their academic achievements and maintaining the psychological state. Therefore, students were offered a list of

resources which can be useful in each individual case (textbooks, online sources, etc.), if the Internet is very weak, it is advisable to create resources, for example, in txt format, psychological recommendations on how to tackle stress or depression, a manual on alternative ways to connect to the Internet. Moreover, students had the opportunity to find support online via consultations with their teachers or psychologists and were visited in their hostels when it was possible.

Conclusions. The war in Ukraine definitely brought a lot of challenges and forced adjustments to the educational process, having revealed that the well configured system of distance learning was not appropriate enough in such circumstances and needed fast changes. The situation is even more complicated on the occupied territories where the university was located.

Limited access to the educational tools and therefore resources had an impact on the students' achievements at the end of the second semester.

During the survey students mentioned that they experienced technological, psychological, educational and personal problems. A vast majority of the students experienced a mix of the problems and at the same time nearly twenty percent of them pointed out that study helped them to distract from what was happening around and feel some kind of relief or even relaxation.

The prospects for future research includes search for new learning methods, tools, techniques, resources, etc., especially in foreign language teaching, for both students who left occupied regions and those who stay there, selection of technologies that can be used when the Internet signal is weak and development of new programs on foreign language learning to improve the educational process.

BIBLIOGRAPHY

1. Baumann U., Shelley M., Murphy L., White C. New challenges: the role of the tutor in the teaching of languages at a distance. *Distances et saviors*. 2008. 6(3). P. 364–392.
2. Dahiya B. P. Role of ICT in Higher Education. *Academic and Administrative Audit in Higher Education*. 2018. URL: https://www.researchgate.net/publication/332246814_Role_of_ICT_in_Higher_Education
3. Ekmekçi E. Distance-education in Foreign Language Teaching: Evaluations from the Perspectives of Freshman Students. *Procedia – Social and Behavioral Sciences*. 176. 2015. P. 390–397. URL: <https://doi.org/10.1016/j.sbspro.2015.01.487>.
4. Konovalenko T., Nadolska Y. Development of future foreign language teachers' information literacy and digital skills in Ukrainian context. *E3S Web of Conferences*. 166. 10009. 2020. URL: <https://doi.org/10.1051/e3sconf/202016610009>
5. Lemeshchenko-Lagoda V., Kryvonos I., Kolodii O. Integration of information and communication technologies into the process of learning the course of English for specific purposes as one of the requirements for sustainable future development. *The International Conference on Sustainable Futures: Environmental, Technological, Social and Economic Matters*. 2020. Kryvyi Rih. Volume 166. URL: <https://doi.org/10.1051/e3sconf/202016610005>
6. Sampson N. Meeting the Needs of Distance Learners. *Language Learning & Technology*. 2003. 7(3). P. 103–118. URL: <http://dx.doi.org/10.125/25216>
7. Shalatska H., Zotova-Sadylo O., Muzyka I. Moodle course in teaching English language for specific purposes for masters in mechanical engineering. Proceedings of the 7th Workshop on Cloud Technologies in Education. Kryvyi Rih. 2019. Vol. 2643. P. 416–434. URL: <http://ceur-ws.org/Vol-2643/paper24.pdf>
8. Sharov S., Kolmakova V., Sharova T., Pavlenko A. Analysis of MOOC on Programming for IT Specialist Training. *TEM Journal*. 2021. Volume 10. Issue 4, P. 1884–1894. URL: DOI: 10.18421/TEM104-52.
9. Сорокіна, Г., Краснова, Н. Викладання іноземної мови в умовах дистанційного та онлайн-навчання. *InterConf*. 2021. (51). URL: <https://ojs.ukrlogos.in.ua/index.php/interconf/article/view/11605>
10. Symonenko S. V. et al. Cloud technologies for enhancing communication of IT-professionals. *Proceedings of the 7th Workshop on Cloud Technologies in Education*. Kryvyi Rih. 2019. Vol. 2643. P. 225–236. URL: <http://ceur-ws.org/Vol-2643/paper12.pdf>
11. Symonenko S. V., Zaitseva N. V., Vynogradova M. S., Osadchyi V. V., Sushchenko A. V. Application of ICT tools in teaching American English for computer science students in the context of global challenges. *Journal of Physics: Conference Series*. 2021. 1840(1). 012048 URL: doi:10.1088/1742-6596/1840/1/012048
12. White C. Distance learning of foreign languages. *Language Teaching*. 2006. 39. P. 247–264. URL: doi:10.1017/S0261444806003727.

REFERENCES

1. Baumann U., Shelley M., Murphy L., White C. (2008) New challenges: the role of the tutor in the teaching of languages at a distance. *Distances et savoirs*, 6(3) pp. 364–392.
2. Dahiya B. P. (2018) Role of ICT in Higher Education. *Academic and Administrative Audit in Higher Education*
3. Ekmekçi E. (2015) Distance-education in Foreign Language Teaching: Evaluations from the Perspectives of Freshman Students. *Procedia – Social and Behavioral Sciences*. 176. pp. 390–397.
4. Konovalenko T., Nadolska Y. (2020) Development of future foreign language teachers' information literacy and digital skills in Ukrainian context. *E3S Web of Conferences*. 166. 10009
5. Lemeshchenko-Lagoda V., Kryvonos I., Kolodii O. (2020) Integration of information and communication technologies into the process of learning the course of English for specific purposes as one of the requirements for sustainable future development. *The International Conference on Sustainable Futures: Environmental, Technological, Social and Economic Matters (ICSF 2020)*. Kryvyi Rih. Volume 166.

6. Sampson N. (2003) Meeting the Needs of Distance Learners. *Language Learning & Technology*. 7(3). pp. 103–118.
7. Shalatska H. Zotova-Sadylo O., Muzyka I. (2019) Moodle course in teaching English language for specific purposes for masters in mechanical engineering. *Proceedings of the 7th Workshop on Cloud Technologies in Education (CTE 2019)*, Kryvyi Rih. Edited by: Arnold E. Kiv, Mariya P. Shyshkina // *CEUR Workshop Proceedings*. Vol. 2643. pp. 416–434.
8. Sharov S., Kolmakova V., Sharova T., Pavlenko A. (2021) Analysis of MOOC on Programming for IT Specialist Training. *TEM Journal*. Volume 10. Issue 4. pp. 1884–1894.
9. Sorokina G., Krasnova N. (2021) Vykladannia inozemnoi movy v umovakh dystantsiinoho ta onlain-navchannia [Teaching a foreign language in the conditions of distance and online learning.] *InterConf*. (51). [in Ukrainian]
10. Symonenko S. V. et al. (2019) Cloud technologies for enhancing communication of IT-professionals. *Proceedings of the 7th Workshop on Cloud Technologies in Education (CTE 2019)*. Kryvyi Rih. Edited by: Arnold E. Kiv, Mariya P. Shyshkina. Vol. 2643. pp. 225–236.
11. Symonenko S. V., Zaitseva N. V., Vynogradova M. S., Osadchyi V. V., Sushchenko A. V. (2021) Application of ICT tools in teaching American English for computer science students in the context of global challenges. *Journal of Physics: Conference Series*. 1840(1).012048
12. White C. (2006) Distance learning of foreign languages. *Language Teaching*. 39. pp. 247–264.