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MODERNIZATION OF THE UKRAINIAN HIGHER EDUCATION SYSTEM IN THE CONTEXT OF THE PROBLEMS CAUSED BY THE WAR

Abstract. The war has expedited educational transformations that increase the flexibility and adaptability of higher education institutions. Notable advancements include the widespread implementation of information and communication technologies, enhancement of university science, and strengthened international cooperation. The study also explores the strategic integration and consolidation of higher education institutions, alongside expanding financial autonomy to ensure effective post-war development and integration into the European education area. Additionally, the urgent need to protect higher education infrastructure from military attacks, particularly energy and utility systems, is discussed to maintain operational continuity, even remotely. The article analyzes the main consequences of military aggression: forced relocation of students, scientific and pedagogical workers to different cities of Ukraine and beyond, which hinders communication and establishment of constructive interaction in the process of educational activities; complete destruction and partial damage to higher education institutions as a result of missile attacks and military actions; reduction of financial support of higher educational institutions and material encouragement of scientific and pedagogical workers of higher educational institutions; in connection with the existing risks of missile or artillery attacks, the instability of the network, which depends on the duration and scale of power outages.

In the course of the analysis, the main directions of modernization of the Ukrainian higher education system in the context of the problems caused by the war were determined: increasing the flexibility (adaptability) of higher education institutions, introducing information technologies for the organization of educational activities, ensuring the development of university science, intensifying international cooperation, optimization of the network of higher education institutions, expansion of financial autonomy of higher education institutions and change in their economic status, which will ensure the development of higher education in Ukraine in the post-war period and contribute to successful integration into the European educational space.
Conclusions have been made that currently the Ukrainian system of higher education in the context of the problems caused by the war needs to be strengthened against military attacks and destruction, in particular, the protection of the important infrastructure of society's vital activities, due to the fact that temporary restrictions on the supply of electricity, accompanied by the absence of the Internet, do not allow higher education institutions to organize training even remotely.

**Keywords:** armed conflict, higher education system, distance learning, digital technologies, competencies.

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**МОДЕРНІЗАЦІЯ СИСТЕМИ ВИЩОЇ ОСВІТИ В УКРАЇНІ В КОНТЕКСТІ ПРОБЛЕМ, СПРИЧИНЕНИХ ВІЙНОЮ**

**Анотація.** Війна прискорила освітні трансформації, які підвищують гнучкість та адаптивність вищих навчальних закладів. Серед помітних досягнень - широке впровадження інформаційно-комунікаційних технологій, розвиток університетської науки та посилення міжнародної співпраці. У дослідженні також розглядається стратегічна інтеграція та консолідація вищих навчальних закладів, а також розширення фінансової автономії для забезпечення ефективного післявоєнного розвитку та інтеграції в європейський освітній простір. Крім того, обговорюється нагальна потреба захисту інфраструктури вищої освіти від військових атак, зокрема енергетичних і комунальних систем, для підтримки безперервності роботи, навіть віддалено. У статті проаналізовано основні наслідки військової агресії: вимушене переселення студентів, науково-педагогічних працівників у різні міста України та за її межі, що ускладнює комунікацію та налагодження конструктивної взаємодії в процесі освітньої діяльності; повне руйнування та часткове пошкодження закладів вищої освіти внаслідок ракетних обстрілів та бойових дій; скорочення фінансового забезпечення закладів вищої освіти та матеріального заохочення науково-педагогічних працівників закладів вищої освіти; у зв'язку з існуючими ризиками ракетних чи артилерійських обстрілів нестабільність роботи мережі, яка залежить від тривалості та масштабів відключення електроенергії.

У ході аналізу визначено основні напрями модернізації системи вищої освіти України в контексті проблем, спричинених війною: підвищення гнучкості (адаптивності) закладів вищої освіти, впровадження інформаційних технологій організації освітньої діяльності, забезпечення розвитку університетської науки, активізація міжнародного співробітництва, оптимізація мережі закладів вищої освіти, розширення фінансової автономії закладів вищої освіти.
та зміна їх економічного статусу, що забезпечить розвиток вищої освіти в Україні у післявоєнний період та сприяти здійсненню успішної інтеграції в європейський освітній простір.

Зроблено висновки, що наразі українська система вищої освіти в контексті проблем, спричинених війною, потребує посилення захисту від військових атак і руйнувань, зокрема, захисту важливої інфраструктури життєдіяльності суспільства, оскільки тимчасові обмеження на постачання електроенергії, що супроводжуються відсутністю Інтернету, не дають змоги закладам вищої освіти організувати навчання навіть дистанційно.

**Ключові слова:** збройний конфлікт, система вищої освіти, дистанційне навчання, цифрові технології, компетенції.

**Problem statement.** One of the key tasks of Ukraine becoming a successful European state and a full member of the European Union is the modernization of the national higher education system in the context of the problems caused by the war and its focus on accelerating integration into the EU, which should be implemented based on coordinated actions of state administration bodies to ensure socio-economic development, health care, language, and culture.

The military aggression of the Russian Federation slowed down the implementation of the modernization of the educational sector, influenced the limitation of education budgets, and caused the outflow of student youth abroad. In this regard, the situation in the higher education system deteriorated sharply: the educational process was suspended, a large part of educational institutions ended up in the territory occupied by the enemy, the large-scale movement of young people both within Ukraine and abroad, became a challenge for the education system in view of the need to ensure equal access to education. Undoubtedly, the war will affect the quality of higher education in Ukraine and the competitiveness of higher educational institutions, it will accordingly not stimulate young people to obtain higher education at home and will motivate them to choose foreign educational institutions as an alternative [1, p.39]. In addition, the higher education sector of Ukraine itself, due to the excessive number of higher education institutions, the dispersion of resources, the lack of funding and the shortage of students, needs to be modernized to improve efficiency and quality.

**Analysis of the latest research.** Having analyzed the scientific research of domestic and foreign scientists, the works of such scientists as V. Andrushchenko, L. Verbytska, V. Zhuravsky, V. Lugovoi, L. Fedulova, etc., are of particular importance.

Today, there is a significant number of publications in which the reform of the domestic system of higher education is highlighted, for example, K. Levinsky studied the peculiarities of higher educational institutions and contingents of participants in the educational process; Y. Rashkevich emphasized the study of
standardization of higher education. In addition, the main problems of the organization of the Ukrainian higher education sector are highlighted in the scientific works of Y. Fedorchenko; optimization of the network of higher educational institutions in Ukraine was considered by T. Koroleva and A. Pidgorny, (2017). And such scientists as V. Kremen, V. Lugovii, P. Saukh, Zh. Talanova formed their own model of optimization of the network of higher educational institutions.

Analyzing the scientific research of scientists who studied the impact of war on higher education, it is important to highlight such scientists as A. Shevchuk and I. Shevchuk, who in their scientific works highlighted the destructive impact of war on education and described the distance form of education determined by it. The activities of higher education in wartime conditions were studied by I. Drach, O. Zakharova and Y. Skyba. The issue of post-war education reforms in various countries was investigated by Holian, Volkmar, Shibita and others. Thus, after analyzing a significant number of works, currently the main directions of modernization of the Ukrainian higher education system in the context of the problems caused by the war are not sufficiently covered.

**The purpose of the article.** The war has a negative impact on the entire higher education system of Ukraine, which is confirmed by the destruction of the educational infrastructure, the use of educational facilities for military purposes, impossibility of organizing training during hostilities, risks to life and health of all participants in the educational process, forced relocation of higher education institutions, teachers, and students to other territories. Russia's military aggression led to significant destruction and losses in the economy and social infrastructure, caused significant changes in the higher education system.

It should be noted that Ukraine has a developed system of higher education, which is characterized by significant stability. Therefore, military actions caused significant damage to it, but did not destroy it completely, as evidenced by the continuation of the educational process both in schools, as well as in universities, which in the conditions of war not only provide the educational process, but also hold scientific conferences. The war continues, and the amount of damage to higher education in Ukraine has not yet ended. However, we can already talk about the short-term and distant consequences of the war for the higher education system of Ukraine [5;6].

The war started by Russia caused a number of serious modern problems in Ukrainian higher education, namely: the forced relocation of a significant number of university students and teachers to different regions of Ukraine and abroad, that disturbed the normal process of communication and cooperation in the learning process; the destruction and damage of educational institutions as a result of hostilities and rocket fire the impossibility of their restoration during the war; a significant decrease in the financial resources of higher education institutions and opportunities to support educational infrastructure and material incentives for
employees of higher education institutions; frequent interruptions in the educational process due to hostilities risks during rocket attacks, lack of electricity and Internet, which leads to a decrease in the amount of educational material, worsens the assimilation of knowledge and lowers the quality of education. All these negative processes led to the fact that the conditions of higher educational institutions of Ukraine significantly worsened due to the loss of material and personnel resources, a decrease in the number of students, which put many universities on the verge of survival [7;9].

At the same time, the war forced higher educational institutions to mobilize and adapt their activities to new challenges and conditions. To ensure the educational process, the Ministry of Education and Science of Ukraine and domestic higher educational institutions implemented a transformation of the organizational forms and methods of obtaining higher education in the conditions of hostilities, which provides for expanding the autonomy of higher education institutions to organize the educational process [2, c. 24].

Decisions about the study format (online or offline) and its calendar schedule are made by the administration of the higher educational institution from a safe position for students and scientific and pedagogical workers; wide use of digital technologies in the educational process for the implementation of distance education, improving the qualifications of teaching staff in the field of digital skills, developing distance courses; organizational and legal support for the transfer of higher educational institutions from the occupied and front-line territories to safer regions; development of scientific and research activities, including those related to solving problems of crisis situations, with the needs of defense; activation of contacts and expansion of partnerships with foreign universities and colleges in educational and scientific activities, use of various forms of international cooperation to preserve the educational institution and solve its problems.

At this stage, the organization of the educational process in higher education institutions in the online format, which is not new for modern society, is becoming important, because thanks to the partial transfer of higher education to this format in 2020 due to the widespread coronavirus infection of COVID-19.

Distance learning has become an affordable way for students to get a quality higher education, but the need for effective online learning takes on greater meaning and becomes especially relevant for countries that have found themselves in a zone of military conflict or related occupation. In the most difficult time for society as a whole and for the higher education system, which is the period of military conflict, educators mobilize and demonstrate a high level of professionalism to provide online education.

In addition, the Ministry of Education and Science of Ukraine detailed the developed plan in the Concept of Restoration of Education and Science of Ukraine during 2022-2032. A number of key directions for the restoration of higher education
and adult education are outlined, namely: personality development and decent employment; unity and support of democratic values; training of in-demand specialists and scientists; trust in the educational, scientific and expert activities of institutions of higher education (partly - ZVO); optimization of the network of higher education institutions and the creation of a modern educational space; ensuring the autonomy of higher education institutions; internationalization of higher education of Ukraine; continuous education as the mainstream of modernity; synergy of education and business.

The challenges caused by the war, in the long term, create new opportunities for bringing the higher education system to a new qualitative level. According to Samera T. Said and Patrick Blessinger, "after the war in Ukraine, higher education institutions will be forced to adapt to new realities and opportunities. The destruction left behind by the conflict will give universities the opportunity to rethink their role and their place in society" [8].

War and devastation should become an impetus to change approaches in the restoration of the higher education system of Ukraine. It should not be just an improvement of the existing system, which in many respects is a legacy of the Soviet Union, but the creation of an innovative model of higher education capable of responding to the challenges of modern society. The National Declaration of Ukraine on the Obligation to Transform Education, posted on the website of the UN national declarations, states: "It is necessary to carry out system-wide transformations, including the use of flexible teaching methods, rapid response to changes in education." the security situation, implementation of catch-up programs and tools based on in-depth training and assessment of skills that are lacking" [10].

At present, the adoption of the Strategy for the Development of Higher Education in Ukraine for 2022-2032, which was approved by Order of the Cabinet of Ministers of Ukraine dated February 23, 2022 No. 286, was of particular importance for the modernization of the Ukrainian higher education system in the context of the problems caused by the war. It is important to note that the specified legislative document is aimed at the period of Ukraine's accession to the EU.

The strategy for the development of higher education in Ukraine for 2022-2032 includes relevant goals and main tasks aimed at rebuilding and continuing the reform of the higher education system in the period of post-war reconstruction. And the implementation of the tasks specified in the Strategy will make it possible to mitigate the destructive consequences that were caused by the armed conflict [3].

So, based on the above information, we believe that the Ukrainian higher education system will not just have to be rebuilt, but fundamentally reformed, what are the transformations accelerated by the war, which form new vectors for the development of higher education in Ukraine. Thus, we consider it necessary to present the main directions of modernization of Ukrainian higher education in the context of the problems caused by the war:
I. Flexibility (adaptability) - in the conditions of martial law, there is an increase in the level of flexibility in the organization of the swarm of higher educational institutions. But, in our opinion, this process should be expanded, especially regarding the content of education and the formation of modern key competencies, which must be fundamentally revised in accordance with the trends in the development of the national economy, the demands of the labor market and the personnel needs of Ukraine as during the war, as well as for the reconstruction of the economy. The Institute of Educational Analytics has developed proposals for changing the directions and scope of personnel training in the war and post-war period [4, p.41].

II. Wide implementation of modern information and communication technologies - saturation of the physical space of the educational institution with electronic and digital devices, means, systems and the introduction of pedagogical technologies based on the use of information and communication technologies, cloud-oriented technologies and augmented and virtual reality technologies. It is thanks to digital technologies that Ukraine managed to ensure the continuity and safety of the educational process in the conditions of hostilities.

III. Development of university science in Ukraine. During the military invasion, the loss of the scientific potential of higher education institutions can be traced. In this regard, better conditions should be created for the generation of new knowledge by scientists of higher education institutions and their implementation both in the educational process and in the field of economic activity. In addition, in our opinion, the development of their scientific and production potential should be ensured and strengthening cooperation with business and foreign partners in the field of science.

IV. Activation of international cooperation. The war gave a powerful impetus to establishing contacts with foreign partners. International academic and scientific cooperation should be strengthened. Many international projects and Ukrainian initiatives contribute to this.

V. Optimization of the network of higher education institutions. Currently, there are an excessive number of various higher education institutions operating on the territory of Ukraine, among which many are small and unable to provide quality educational services. Therefore, it is necessary to unite them to strengthen the educational and scientific potential.

The war posed many serious challenges to the education of Ukraine in the field of education functioning and the formation of highly qualified personnel for the war and post-war economy, mainly: creation of safe conditions for training and training in higher education institutions, which is implemented through the arrangement of safe shelters in educational institutions for the organization of stationary training and the transition to distance education; restoring the normal learning process and improving the quality of education. Solving most of the current
problems of higher education and creating conditions for its development are possible only after the end of the war. At the same time, the development of international cooperation in the field of education is very important.

**Research methodology.** In the process of our research, the scientific views of foreign and domestic scientists and teachers who studied the peculiarities of the restoration of the higher education system in Ukraine in the context of the problems caused by the war were analyzed. In addition, the following methods were used in the research process: theoretical analysis, synthesis, comparison, and comparison for the conceptualization of scientific literature, the study of regulatory documents in the field of higher education; classification and systematization of theoretical data related to the realities of the domestic sector of higher education. Generalization for processing and interpretation of theoretical sources on the researched problem, state standards of higher education, determination of regularities, formulation of conclusions.

**Conclusions and recommendations.** During the research was find out that the influence of the war in Ukraine on the system of higher education, the losses incurred and forced transformational processes, which form new vectors of development and modernization of higher education during post-war reconstruction, were highlighted.

As we said above, the war accelerates educational transformations that form new vectors of higher education development in Ukraine. Among them: increasing the flexibility and adaptability of higher education institutions, wide implementation of information and communication technologies in the organization of the educational process, stimulation of the development of university science, activation of international cooperation, optimization of the number of higher education institutions through their integration and consolidation, expansion of financial autonomy of universities.

This will make it possible to ensure the post-war development of higher education in Ukraine and its effective integration into the European area of higher education. Currently, higher education in Ukraine needs to strengthen protection against military attacks and destruction, primarily the protection of energy and utility infrastructure, since power outages and the lack of the Internet do not allow universities to organize training even remotely.

**References:**


Література:


