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REFORMING SECURITY EDUCATION PROGRAMS IN HIGHER EDUCATION INSTITUTIONS OF UKRAINE UNDER THE INFLUENCE OF WAR

Abstract. The full-scale Russian invasion of February 24, 2022, became a catalyst for profound transformation across all spheres of Ukrainian society – most notably in the field of education. Safety-related disciplines such as “Life Safety”, “Occupational Safety” and “Civil Protection” which had previously been part of the general educational or professional curriculum, have evolved into an integral component of daily life. They have acquired specific, highly relevant content aimed at survival, adaptation, and building the future under constant military threats.

The transformation of safety disciplines in Ukraine’s higher education system during the full-scale war is not merely a crisis response involving curriculum adjustments; it marks the beginning of a structural reform characterized by a fundamental rethinking of educational content.

The purpose of this analysis is to identify recommendations and necessary changes aimed at reforming safety education programs in Ukrainian higher education institutions under wartime conditions, as well as to foster a flexible, practice-oriented, technologically advanced, and psychologically resilient system of teaching safety disciplines.

The study demonstrates that while the higher education system has proven remarkably resilient, the war has exposed serious internal vulnerabilities. Effective adaptation to risks depends not only on technological resources but also on stable funding, physical security, and most importantly, a reliable network of psychological support for all participants in the educational process. Recognition of these challenges has led to a radical rethinking of pedagogical practices, including the development and implementation of trauma-informed pedagogy within safety-related curricula. This involves group training sessions, emotional intelligence development,



and art therapy-based approaches. A special role in the new methodology is played by service-learning – a form of project-based learning in which the educational process is integrated with the real needs of society.

Future research directions have been outlined, with proposed dependent, independent, and control variables, as well as methodological components for further studies. The outcomes of such research could provide valuable insights for developing new educational standards, methodological resources, and teacher training programs that remain relevant not only during wartime but also in peacetime, particularly in the contexts of emergency management and cybersecurity.

Keywords: safety discipline, life safety, educational process, changes in teaching the discipline, learning formats and technologies, pedagogical practice, psychological resilience, needs of society.

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РЕФОРМУВАННЯ ПРОГРАМ БЕЗПЕКОВОЇ ОСВІТИ У ВИЩИХ НАВЧАЛЬНИХ ЗАКЛАДАХ УКРАЇНИ ПІД ВПЛИВОМ ВІЙНИ

Анотація. Повномасштабне вторгнення Росії 24 лютого 2022 року стало каталізатором глибокої трансформації у всіх сферах українського суспільства, найбільшою мірою – у сфері освіти. Безпеківі дисципліни, такі як «Безпека життєдіяльності», «Охорона праці» та «Цивільний захист», що раніше були частиною загальноосвітнього чи професійного компонента, перетворилися на невід'ємну складову життєвої практики, набули конкретного, дуже актуального змісту, спрямованого на виживання, адаптацію та будівництво майбутнього в умовах постійних військових загроз.

Трансформація безпекових дисциплін у вищій освіті України в умовах повномасштабної війни є не просто реакцією на кризу з коригуванням відповідних навчальних програм, а початком структурної реформи з фундаментальною перебудовою змісту навчання.

Поставлена мета аналізу рекомендацій і визначення необхідних змін, спрямованих на реформування програм безпекової освіти у закладах вищої освіти України в умовах війни, а також на формування гнучкої, практично орієнтованої, технологічно розвиненої та психологічно стійкої системи викладання безпекових дисциплін.

Показано, що війна виявила, що система вищої освіти, хоч і є надзвичайно стійкою, має серйозні внутрішні ризики. Ефективна адаптація до ризиків залежить не лише від технологій, але й від стабільного фінансування, фізичної безпеки та, що найважливіше, від надійної мережі психологічної підтримки для всіх учасників освітнього процесу. Усвідомлення цих викликів призвело до радикального переосмислення педагогічних практик, розробки та реалізації в освітніх програмах з безпекових дисциплін розділів психологічної стійкості (*trauma-informed pedagogy*), включаючи групові тренінги, заняття з розвитку емоційного інтелекту та арт-терапевтичні технології тощо. Особливе місце в новій методології займає *service-learning* – форма проектної діяльності, де навчальний процес інтегрується з реальними потребами суспільства.

Сформовані напрямки подальших наукових досліджень за напрямком. Запропоновані залежні, незалежні та контрольні змінні та складові методології розробок. Отримані результати такого дослідження можуть надати цінні вказівки для розробки нових освітніх стандартів, методичних матеріалів та програм підвищення кваліфікації викладачів, що будуть актуальними не лише в умовах війни, а й в умовах мирного часу, особливо в контексті управління надзвичайними ситуаціями та кібербезпеки.

Ключові слова: безпекова дисципліна, безпека життєдіяльності, освітній процес, зміни викладання дисципліни, формати і технології навчання, педагогічна практика, психологічна стійкість, потреби суспільства.

Problem Statement. Russia's full-scale invasion on February 24, 2022, became a catalyst for profound transformation in all spheres of Ukrainian society – most significantly in the field of education. For security-related disciplines such as Life Safety, Occupational Safety, and Civil Protection, this meant not just adjusting curricula but fundamentally restructuring the content of instruction. These subjects, which had previously been part of general or professional education, have turned into an integral component of daily life practice, gaining concrete and highly relevant content aimed at survival, adaptation, and building the future under conditions of ongoing military threats.

One of the key directions of this transformation was the significant expansion of the security domain through the introduction of the Basic Military Training (BMT) course in Ukrainian higher education institutions. The goal of the BMT course is to develop essential military skills and competencies among young people and to ensure citizens' readiness to defend the Motherland, its independence, and territorial integrity in accordance with their constitutional duty. Phenomena that were once considered rare or exceptional have become everyday realities requiring special preparation. These include military-related threats such as psychological readiness for conflict, combat techniques, mine action, medical knowledge for providing first aid to the wounded, organization of civilian evacuation, and work in de-occupied territories.



Furthermore, the war has led to the emergence of a new category of threats – digital threats. The increase in cyberattacks targeting critical infrastructure, public services, and law enforcement agencies has made it necessary to integrate issues of cyber hygiene, digital hygiene, and media hygiene into security-related courses in higher education.

Analysis of Recent Studies and Publications. An analysis of sources [1 – 4] indicates that the transformation of security-related disciplines in Ukrainian higher education under the conditions of full-scale war is not merely a reaction to crisis, but the beginning of a structural reform. The war has acted as a catalyst that accelerated processes which might otherwise have evolved much more slowly; however, it has also exposed fundamental internal problems within the system, such as insufficient funding, infrastructure deficiencies, and the psychological readiness of participants in the educational process. This situation creates a unique testing ground for examining how an educational system can adapt to extreme conditions while maintaining the quality of education and supporting the psychological well-being of both students and teachers.

Thus, the substantive transformation of security-related disciplines represents the most significant aspect of the crisis adaptation process. The war has transformed abstract concepts of security into concrete, vital content. These disciplines have ceased to be purely academic subjects and have instead become instruments for survival, adaptation, and the construction of the society of the future. This process is a direct consequence of the changes imposed by the enemy and reflects the essential principle of adapting to new realities to ensure the continuity of the educational process and the preservation of human capital.

Purpose of the Article. The purpose of this article is to analyze recommendations and identify the necessary changes aimed at reforming security education programs in Ukrainian higher education institutions under wartime conditions, as well as to develop a flexible, practically oriented, technologically advanced, and psychologically resilient system for teaching security-related disciplines.

Presentation of the Main Research Material. The most notable trend in higher education has been the growing practical orientation of teaching security-related disciplines. A significant step in this direction within Ukrainian higher education institutions has been the implementation of the Basic Military Training (BMT) program, which develops among students fundamental competencies in the field of national security and defense, fosters readiness to fulfill military duties, and enhances civic responsibility and resilience in wartime and crisis situations. BMT serves as a tool for integrating elements of military training into the system of civic education and the broader security framework of the state. It supports the implementation of the National Resistance Concept, while introducing NATO standards and European models of comprehensive security into security-related academic courses.

For universities that provide training under the BMT program, traditional teaching methods have proven insufficient. They are compelled to radically revise their methodology by integrating real military practices and scenarios [5]. This includes the use of simulators and virtual (VR) and augmented reality (AR) technologies for the safe rehearsal of complex situations. Online platforms are also widely used to conduct training sessions that help students acquire fundamental knowledge in national defense, civil protection, first aid, and information security; develop practical skills in tactical, engineering, and firearms training; and cultivate patriotism, discipline, teamwork, and psychological resilience, as well as the ability to make decisions under stress.

Such courses, hosted on popular educational platforms, attract a large audience and issue certificates of completion, which enhances their legitimacy. This process demonstrates a systematic approach to disseminating relevant security-related knowledge that has become an integral part of every citizen's life in wartime conditions.

The conditions of full-scale war have forced Ukrainian higher education to undergo a rapid and profound methodological revolution.

The transition from traditional forms of teaching to flexible, technology-supported, and human-centered approaches has become not merely an option but an absolute necessity to ensure the continuity of the educational process. This transformation was partially facilitated by the experience of the COVID-19 pandemic, which had already provided teachers and students with basic skills for remote learning. However, the war introduced a new set of specific challenges that prompted a radical rethinking of pedagogical practices.

Accelerated digitalization has become one of the most evident and irreversible consequences of the war. As of spring 2022, 82% of Ukrainian universities continued the educational process primarily in a distance-learning format. Widely available platforms such as Google Classroom, Zoom, Moodle, and Microsoft Teams became key tools. These platforms enabled not only live instruction but also the full organization of the learning process in a digital environment – hosting materials, assigning tasks, and facilitating student–teacher interaction.

However, the massive missile attacks of winter 2023, which caused systemic power outages and internet disruptions, exposed the weaknesses of synchronous learning models. As a result, asynchronous formats gained increasing importance, providing students with the flexibility to study at their own pace – whenever there was no air raid alert or connectivity issue. Tools for creating interactive presentations, collaborative workspaces, and recorded lectures became indispensable for maintaining the continuity of education.

Technologies are used not only as tools for content delivery but also as means of psychological support.

Gamification is applied not merely for knowledge assessment but also to relieve psychological tension, increase motivation, and foster a sense of social



interaction [6]. The use of leaderboards and team-based tasks within interactive game platforms helps students feel part of a community, even when they are physically separated. Digital messaging platforms have become an integral part of the educational process, serving for prompt communication, group coordination, and the creation of both formal and informal support spaces. The ability to record classes and access materials at any time allows students to adapt their learning pace to individual circumstances – especially important for those who cannot participate in real time due to relocation or health conditions.

The most profound transformation lies in the shift toward a trauma-informed pedagogy [1]. The war has created conditions of constant stress, which have become a major obstacle to effective learning. As a result, instructors are now prioritizing the psychological well-being of students above all. This includes demonstrating empathy, fostering a safe and trusting environment, and giving students a sense of control over their own learning. Teachers often begin classes with words of encouragement, check in on students' emotional states, and are willing to deviate from lesson plans depending on the situation in the country or individual student circumstances. This approach requires educators not only to possess methodological competence but also to demonstrate a high level of emotional intelligence and self-care.

A special place in this new methodology is occupied by service-learning – a form of project-based activity that integrates the educational process with the real needs of society. This approach has become an important tool for patriotic engagement and maintaining student motivation. Examples include campaigns to boycott companies from the aggressor state, support for volunteer initiatives, and organization of charity events. Such projects give students a sense of purpose and belonging, boost self-esteem, and foster a feeling of meaningful contribution – factors that are critically important for overcoming depression and apathy during crises [7]. Educators leading such initiatives face substantial emotional strain but report that the process helps both them and their students process traumatic experiences more effectively.

Overall, the methodological transformation is not merely a technical shift to new platforms, but a profound cultural change.

Teaching has become more humanistic, flexible, and centered on students' psychological well-being, as this has emerged as the primary barrier to effective learning during wartime [8]. This process demonstrates the remarkable adaptability of the Ukrainian education system, which continues to find new ways to maintain both quality and continuity of instruction, even under extreme conditions.

The full-scale war has served as a continuous stress test for Ukraine's higher education system, revealing not only its strengths but also serious internal risks and vulnerabilities. The crisis has imposed ongoing psychological pressure on all participants in the educational process – from students and faculty to administrators and staff – and has required continuous adaptation at both the psychological and organizational levels.

The magnitude of psychological strain is among the most critical challenges. Research data indicate an alarmingly high prevalence of stress, anxiety, and depression among educators. According to a survey conducted among university instructors in April 2022, 51.7% identified psychological (emotional) factors – such as concern for loved ones and general anxiety – as the most destructive to the quality of the educational process. The situation among students is no better: several studies show high rates of PTSD symptoms (48.1%), anxiety (34.1%), and depression (33.6%) among university students.

Despite these hardships, there is also a positive aspect: for many, education has become a psychological anchor, a source of normalcy, stability, and a way to divert attention from traumatic events [8]. Effective psychological support provided early in the war has had a significantly positive impact on students' mental health, doubling their sense of safety and security.

Physical security, the state of educational infrastructure, and the financial crisis represent another key challenge.

In 2022, Ukraine's education budget decreased from 14.25% to 8.49% of the national budget, resulting in serious financial difficulties for many universities. This reduction has affected faculty salaries – with the average teacher earning only about half of the legally mandated amount – as well as funding for repairs, new equipment purchases, and infrastructure maintenance. Some universities have been forced to rely on international assistance from organizations such as Google.org, UNESCO, and UNICEF, which provide devices, conduct training, and offer financial support.

Awareness of these challenges has led to the integration of psychological support components into educational programs in security-related disciplines. These include group training sessions, emotional intelligence development classes, and art therapy techniques. Furthermore, the presence of university psychological services is one of the key factors that positively influence students' mental health. In addition, support programs for educators are being developed and implemented – such as the joint initiative “International Alliance for HR Readiness and ITC – Israel Trauma Coalition”, which provides training in psychological resilience and effective teaching in crisis conditions.

Thus, the war has revealed that while the higher education system in Ukraine is remarkably resilient, it also faces serious internal vulnerabilities. Effective adaptation depends not only on technology but also on stable funding, physical safety, and – most importantly – on a reliable psychological support network for all participants in the educational process.

Against the backdrop of chaotic yet rapid local adaptations, government bodies and international partners are working to formalize and standardize the ongoing processes within Ukrainian higher education. This has given rise to a dual-contour model of adaptation: on one hand, there is a flexible, incremental process that develops quickly but lacks unified standards; on the other, a formal, slower process seeks to establish coherent regulatory frameworks and strategic directions.



Successfully combining these two approaches will be a key challenge for the future development of Ukraine's higher education system.

At the national level, the key initiative is led by the Ministry of Education and Science of Ukraine (MESU). Together with UNESCO, the Ministry has developed and approved a Safety Concept for Educational Institutions, which emerged from their cooperation and the pilot project "Safe Learning Environment."

Strategic initiatives aim to guide the system toward long-term development. Ukraine is currently developing a National Strategy for the Digital Transformation of Education until 2030, which includes plans for device distribution in frontline regions, the provision of universal high-speed internet access, and the creation of interactive digital content. The Ministry is also working on establishing a unified mobile platform for interaction between universities, students, and government agencies – a system intended to replace the existing fragmented infrastructure. In addition, the Strategy for the Development of Higher Education in Ukraine (2022-2032) is being implemented, which, despite the ongoing war, strives to preserve its core goals such as improving governance, education quality, and international cooperation.

International support plays a crucial role in sustaining Ukrainian education. This support not only provides essential resources but also fosters integration of Ukraine's education system into the European and global educational space.

These regulatory and strategic initiatives demonstrate that Ukraine is not merely striving to survive the crisis, but is actively using it as a catalyst for structural reforms and for enhancing the quality of security education. The combination of rapid local adaptation, long-term strategic planning, and international partnerships forms a powerful mechanism for the preservation and development of Ukrainian higher education under wartime conditions.

Conclusions. The analysis of available sources indicates that the transformation of security-related disciplines in Ukrainian higher education during the full-scale war is not merely a reaction to crisis, but the beginning of a structural reform. The war has acted as a catalyst, accelerating processes that might otherwise have evolved more slowly, while also exposing fundamental internal weaknesses in the system – such as insufficient funding, infrastructural challenges, and limited psychological preparedness among educators and students. This situation provides a unique testing ground for exploring how an educational system can adapt to extreme conditions while maintaining instructional quality and supporting the psychological well-being of both students and faculty.

Based on the presented material, a comprehensive research question for future investigations can be formulated as follows: how has the transformation of security-related disciplines ("Life Safety", "Occupational Safety", "Civil Protection" and Basic Military Training) under the conditions of full-scale war in Ukraine influenced the formation of a new paradigm of teaching, content, and methodology in higher education, and what are the long-term implications of this transformation for building a resilient, psychologically oriented, and practice-based educational system?

This question is both significant and timely, as it addresses one of the most acute crisis phenomena of the 21st century – education under conditions of full-scale war. The outcomes of such research would have a direct impact on educational policy and practice not only in Ukraine but also in other countries facing similar challenges. The study would enable a shift from descriptive and situational analyses toward a comprehensive, multidimensional investigation, assessing not only mechanisms of adaptation but also their long-term effectiveness and the potential for establishing a sustainable new approach to security education.

Research Variables.

Dependent variable: formation of a new paradigm of security education (measured through analysis of curricula, methodological materials, and interviews with teachers and students).

Independent variables: content updates (measured by the number of new modules, courses, and topics related to the war); methodological changes (measured by the use of flexible formats, technologies, and pedagogy of psychological resilience); psychological challenges (measured by surveys assessing stress, anxiety, motivation, and psychological support).

Control variables: level of university funding, condition of physical infrastructure, type of institution, etc.

Methodology.

Quantitative methods: statistical analysis of the destruction of educational facilities, student performance, number of academic staff, and salary levels – to obtain an objective picture of the war's impact on educational resources and outcomes.

Qualitative methods: in-depth interviews with teachers and students to understand their experiences, adaptation strategies, and perceptions of new teaching methods; observations of online classes and group projects to explore real interaction and support mechanisms.

Bibliometric analysis: identification of key themes and trends in academic literature on this issue, which would help assess the level of scholarly discussion and reveal existing knowledge gaps.

The findings of such research could provide valuable guidance for developing new educational standards, methodological materials, and professional development programs for educators. These outcomes would remain relevant not only in wartime but also in peacetime contexts – especially in fields related to emergency management, civil protection, and cybersecurity.

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