

**WAR AND EDUCATION:
HOW TO PRESERVE KNOWLEDGE AND SUPPORT CHILDREN**

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INTRODUCTION

The article analyzes the institutional and legal foundations of state educational policy aimed at ensuring the quality of higher education in the context of modern challenges caused by Russia's armed aggression against Ukraine. The results of research conducted by the Ministry of Education and Science of Ukraine, the State Service for the Quality of Education, and the National Agency for Quality Assurance in Higher Education on the functioning of higher education institutions and the provision of educational services during martial law are considered. The key problems of ensuring the quality of education that require effective management decisions, effective educational policy, and the implementation of innovative approaches to organizing the educational process in wartime are identified.

The devastating impact of armed conflict extends far beyond battlefield casualties and destroyed infrastructure—it threatens to collapse entire educational systems and deprive generations of their fundamental right to knowledge. When Russia launched its full-scale invasion of Ukraine in February 2022, it not only targeted military installations but also systematically damaged educational facilities—bombing universities, destroying schools, and disrupting the academic foundations of a sovereign nation. This aggression created unprecedented challenges for Ukraine's educational infrastructure, forcing institutions to rapidly adapt their approaches to teaching, assessment, and student support under constantly changing security conditions.

Educational resilience during wartime represents a critical yet understudied dimension of national defense strategy. While military operations focus on territorial integrity, educational continuity ensures intellectual sovereignty and preserves cultural identity for future generations. Ukraine's experience demonstrates how educational systems can function under extreme duress through innovative approaches, institutional flexibility, and international cooperation. This article examines the multifaceted responses of Ukraine's educational authorities to maintain quality standards amid air raid sirens, power outages, and mass displacement of students and faculty.

The protection of educational rights during conflict reflects not only a humanitarian imperative but also a strategic necessity for post-war recovery and development. By analyzing institutional responses and legal frameworks adapted during this crisis, this research contributes to the emerging field of emergency education policy and offers insights for other regions facing similar existential threats to their educational infrastructure.

1. The impact of war on education: problem formulation and research framework

Combat operations in different countries near schools, universities, during which students die. These are attacks on the right to have access to education and postponement of their own educational benefits in their future.

Problems in education during war. Attacks on children, educational institutions around the world violate the norms of the convention on the protection of children.

Without access to education, entire generations of children will lose the opportunity to obtain skills in advance. Which can provide competitive skills in the future for these children. Delaying education during military operations worsens the scientific potential of the nation for each country. Every year, month, day, hour, minute, second spent on war creates a hopeless situation for millions of children who lose their potential due to war and those who do not want to stop the hostilities.

The right of children to the knowledge they need, because they are only starting on the path of knowing the world and every part of their life is taken away by war, these are killings, anxiety, air threats. Children's fear for life. Education cannot be provided in conflict zones without protection for life. Education saves lives. The President, the Minister of Education, the authorities must as soon as possible end hostilities to save the future of the nation, namely the education of children. Children all over the world are striving for a safe space for learning without war, fear for their lives, to learn the world of knowledge on a beautiful planet. The future of global development of the world is an important step towards breaking the cycle of crises and the significance of future crises in the world.

To highlight the main challenges faced by the higher education system of Ukraine in the conditions of a full-scale Russian invasion, as well as to analyze the current problems of ensuring the quality of educational services in higher education institutions during martial law, based on the results of information and analytical research.

The research used methods of systematic analysis of scientific works, regulatory legal acts and analytical materials of state bodies that highlight the issues of ensuring the quality of higher education under martial law. The

methods of induction and deduction, abstraction, concretization and comparison were also used to determine the methodological principles of the study. Generalization and systematization allowed us to organize the results and formulate well-founded conclusions.

State policy on the organization of the educational process in the new academic year during hostilities:

Continue the reform of the New Ukrainian School and develop the necessary documents, recommendations and courses for teachers to implement the New Ukrainian School in 5 grades of general education institutions. This process has already begun, but currently there is only the course “NUS: Basic Secondary Education”, created by Osvitioria. 1705 people (21.1%) of teachers and heads of educational institutions noted the need to continue the reform and the lack of necessary materials¹.

Develop a strategy for compensating for educational losses for students at the state, individual communities, educational institutions and classes levels. During quarantine and hostilities, numerous complaints were recorded regarding the poor quality of distance learning, interruptions in learning due to air raids and staying in shelters, as well as problems with connecting to online lessons and a lack of gadgets².

2. Methodology and implementation of educational safety measures during war

Develop mechanisms for the simultaneous functioning of different forms of education in the same class or institution, in particular for online and offline learning. Problems with the organization of the educational process, remuneration and other aspects were noted by heads and employees of educational institutions.

Amend the legislation to allow the use of electronic journals in grades 5-11. Currently, this option is only available in grades 1-4. Problems with maintaining class journals during hostilities, as well as the preservation of documentation due to the risks of it falling into the hands of the enemy, have emphasized the need to introduce electronic journals³.

¹ Transitional Book of the Ministry of Education and Science of Ukraine for the period from June 2020 to March 2023. URL: <https://mon.gov.ua/storage/app/media/news/2023/03/21/Transition.book.2023.pdf>

² Education: Impact of the War in Ukraine. The World Bank. Ukraine Sectoral Briefs. 2022. P. 1-3. <https://documents1.worldbank.org/curated/en/099945306202211104/pdf/P1775870809f1d04d0844c0e7042abf0eb5.pdf>

³ Transitional Book of the Ministry of Education and Science of Ukraine for the period from June 2020 to March 2023. URL: <https://mon.gov.ua/storage/app/media/news/2023/03/21/Transition.book.2023.pdf>

Develop algorithms for the evacuation of educational institutions in conditions of hostilities, as well as recommendations for digitizing documents of educational institutions and their preservation in an electronic archive.

Develop algorithms for the actions of heads and pedagogical workers in the event of damage or destruction of educational institutions, as well as strategies for the evacuation of students⁴.

Continue developing online video lessons for the All-Ukrainian School, create lessons for grades 1-4, and continue work on lessons for grades 5-11, which will help compensate for educational losses during the war⁵.

Provide access to textbooks for grade 5 of the National Secondary School in PDF format, as their absence creates difficulties for learning.

Support the development of free distance learning for internally displaced children, as well as for students from temporarily occupied territories and children abroad.

These and other initiatives will help minimize educational losses and ensure continuous learning in war conditions.

- Develop clear algorithms for actions in the event of a natural disaster, with detailed instructions for each stage.

- Determine the algorithm of actions for students, parents and employees of educational institutions during an air raid when they are outside the educational institution⁶.

- Develop step-by-step instructions for actions when suspicious or explosive objects are detected on the territory of an educational institution or near it.

- Create an algorithm of actions when transporting children to educational institutions under martial law, especially in school buses.

- Plan the transportation route in such a way that in the event of an air raid, children and accompanying persons can quickly reach the shelter, while the driver and accompanying person should be familiar with the route and the shelter map.

⁴ Education under threat: interactive map of the Ministry of Education and Science of Ukraine. URL: <https://saveschools.in.ua/>

⁵ Concept of safety of educational institutions, approved by the order of the Cabinet of Ministers of Ukraine dated April 07, 2023 No. 301-p. URL: <https://www.kmu.gov.ua/npas/pro-skhvalennia-kontseptsii-bezpeky-zakladiv-osvity-i070423-301>

⁶ On the state of fire and technogenic safety at educational facilities under the jurisdiction of the Ministry of Education of Ukraine in 2022. Letter of the Ministry of Education and Science of Ukraine dated January 31, 2023 No. 1/1434-23. URL: <https://mon.gov.ua/ua/npa/pro-stan-pozhezhnoyi-ta-tehnogennoyi-bezpeki-na-obyektah-osviti-sho-nalezhat-do-sferi-upravlinnya-mon-u-2022-roci>

- Develop instructions for the accompanying person, in particular, regarding monitoring air raid maps, organizing movement to the shelter, accompanying children and providing assistance if necessary.
- Get acquainted with the map of shelters between the place of residence and the educational institution, check their condition, accessibility and availability.
- Plan a safe route to school for the child so that in the event of an air raid, the child can hide in a shelter, and the parents know what to do⁷.
- Develop clear algorithms for the child's actions during an air raid on the way to and from school.
- Contact the educational institution to inspect the shelters.
- Maintain contact with the class teacher and teachers in the temporarily occupied territories.

3. Educational recovery solutions and principles for quality education in crisis

Due to the difficult situation in the temporarily occupied territories, where many pro-Ukrainian teachers are ready to continue their studies according to Ukrainian programs, but face threats from the occupiers, the following should be taken into account⁸:

- If it is possible to organize distance learning according to Ukrainian programs, ensure the confidentiality and security of such a process.
- If forced to work according to the programs of the occupiers, it is necessary to record the facts of pressure and threats, as well as document them.
- Evaluate the experience of other educational institutions in organizing distance learning and improve approaches to it.
- Conduct trainings and pedagogical councils to improve the qualifications of teachers in organizing distance learning.
- Heads of institutions should monitor the effectiveness of distance learning, timely check of assignments, and work on correcting errors.
- Teachers should provide students with original assignments and check them for integrity and plagiarism.
- Heads of educational institutions should not refuse parents to enroll displaced children.

⁷ On some issues of the creation and functioning of safety classes in educational institutions. Order of the Ministry of Education and Science of Ukraine dated February 10, 2023 No. 135. URL: <https://mon.gov.ua/ua/npa/deyaki-pitannya-stvorenniya-ta-funkcionuvannya-klasiv-bezpeki-u-zakladah-osviti>

⁸What was prepared for the academic year over the summer – answers from OVA. URL: <https://nus.org.ua/articles/shho-vstygly-pidgotuvaty-do-navchalnogo-roku-za-lito-vidpovidi-ova/>

– Assist internally displaced persons in obtaining the necessary documents and ensure the creation of inclusive classes for such children for the period of validity of the certificate.

– Assist in obtaining a new conclusion from the inclusive resource center in the event of its expiration.

If you are taken hostage and your life is in danger:

Try to remember the age, height, voice, manner of speaking, habits, etc. Of the criminals, which may help in finding them;

At the first opportunity, try to notify your relatives or the police of your location;

Try to be reasonable, calm, peaceful, and not put yourself at risk;

If the criminals are under the influence of alcohol or drugs, try to avoid communicating with them, as their actions may be unpredictable;

Do not increase the aggressiveness of the criminals with your disobedience, quarreling, or resistance;

Fulfill the demands of the terrorists without creating conflict situations, ask for permission to move, visit the restroom, etc.;

Avoid any discussions, including political topics, with the criminals;

Do not ask for anything, eat whatever is given;

If you are with the criminals for a long time, try to establish contact with them, evoke humane feelings;

Carefully monitor the behavior of criminals and their intentions, be ready to escape, having made sure of the high chances of success;

Try to find the safest place in the room where you are and where you could protect yourself during the terrorist assault (a room whose walls and windows do not face the street – a bathroom or a closet). In the absence of such a place – fall to the floor at any noise or in the event of shooting;

When using tear gas by special forces, breathe through a wet cloth, blinking quickly and frequently, causing tears;

During the assault, do not pick up the terrorists' weapons in order not to be injured by the attackers who are shooting at armed people;

During the liberation, leave your things where they are, due to the possibility of an explosion or fire, and unquestioningly follow the commands of the capture group⁹.

Educational Loss and How to Engage Your Child in Learning Despite the Challenges of War. We all want to give our children a quality education that will help them build a future. However, in times of war, parents and teachers in Ukraine face a serious problem – educational loss. It goes far beyond the

⁹ Three formats for school. How the school year will begin in Ukraine and what it depends on. URL: <https://newsukraine.rbc.ua/news/three-formats-for-school-how-school-year-1693410949.html>

interrupted educational process, encompassing children's emotional difficulties, obstacles to academic development and potential long-term consequences.

In this article, we will look at what educational loss is, why it occurs and how parents and teachers can motivate children to learn even in difficult conditions. Educational loss is the gap in knowledge and skills that children develop in the process of learning compared to educational standards and expected outcomes. The reasons for such losses can be wars, crises, pandemics, forced displacement and other difficult circumstances.

In times of war, educational loss is caused by the interruption of the educational process, limited access to education due to danger, traumatic experiences and a decrease in overall academic performance. The psychological effects of living in a conflict zone also affect children's ability to concentrate, remember information and effectively express themselves, leading to an even greater educational gap¹⁰.

In addition to the consequences of the pandemic, Ukraine has also been hit by a full-scale war. Studies show that a significant proportion of Ukrainian schoolchildren do not even achieve basic levels of mathematical, reading and science literacy. For example, only 58% of Ukrainian students have basic mathematical literacy, 59% have basic reading literacy, and 66% have basic science literacy. These figures are lower than the average in OECD countries. The main causes of educational losses in Ukraine.

Among the key factors that led to educational losses:

- forced displacement of children and teachers,
- interruption of classes due to air raids,
- power outages,
- injury or loss of students and teachers,
- destruction of schools and educational infrastructure.

In addition, constant uncertainty and fear create an unfavorable atmosphere for learning, which makes it difficult to perceive new material and develop the necessary skills.

Despite all the difficulties, the role of parents and teachers in these times becomes extremely important. They are the ones who can support children, help them not to lose motivation to learn and develop resilience in the face of challenges.

Here are some effective approaches:

- Practical learning. The use of interactive and experimental methods makes education more interesting and closer to real life.

¹⁰ Functioning of Nezlamnosti points in educational institutions. URL: <https://osvita.ua/school/87896/>

– Emotional support. Creating a safe environment where a child can share their experiences reduces stress levels and increases motivation.

– Personalized approach. Individual lessons and adaptation of educational materials help to fill gaps in knowledge.

– Community involvement. Interaction with parents, teachers and school administration contributes to the development of new teaching methods that meet modern challenges.

Although the war has created enormous challenges for education, through a comprehensive approach – a combination of emotional support, innovative methods, and collaborative community efforts – we can help children overcome these challenges and maintain their love of learning¹¹.

Education during the war: key principles and requirements.

Education in the conditions of war requires the coordinated interaction of state institutions, international organizations, local communities, social workers and independent experts. This is necessary to ensure maximum access to education and protection of children in the educational process.

Necessary conditions for the availability of education:

– Sufficient financing of the educational system, infrastructure development and equipment.

– Providing the educational process not only with methodical materials, but also with social and emotional support, cultural events and access to modern technologies.

– Introduction and observance of measures guaranteeing the safety of all participants in the educational process.

– Equal and affordable opportunities for all students, prevention of discrimination and inequality.

– Training and advanced training of teachers to work with students who have learning gaps or psychological traumas that prevent their full adaptation in the educational environment.

New approaches to training in wartime.

Teachers need to adapt teaching formats to increase their effectiveness. Among the key tools are electronic textbooks, interactive presentations, video lessons, as well as stable Internet and availability of gadgets for both teachers and students.

Corrections to study plans should be made only within the limits of the calendar-thematic plans drawn up at the beginning of the school year. This may include changing the number of hours for studying certain topics due to the expansion of didactic units. It is also important to increase the time for

¹¹ Safety above all: how Ukrainian students will study this year. URL: <https://life.pravda.com.ua/columns/2023/09/1/256294/>

repeating the material, especially those topics that have not been fully mastered due to frequent air strikes and other force majeure circumstances¹².

Basic principles of quality education:

1. Individual approach – taking into account the characteristics, abilities and needs of each student for personalized training.
2. Active involvement – encouraging student participation in the learning process for the development of critical thinking and self-discipline.
3. The use of modern methods – the use of advanced pedagogical technologies to increase the effectiveness of education.
4. Development of creativity – stimulation of creative abilities and innovative thinking in students.
5. Value education – formation of justice, ethical norms and civil responsibility in children.
6. Ensuring accessibility – equal access to quality education for all, regardless of social status.
7. Evaluation and feedback – regular monitoring of progress and development of students' self-analysis skills.
8. Support of psychological well-being – creation of conditions for emotional and psychological comfort of students.

The importance of quality education.

Quality education plays a key role in the development of society. It not only gives academic knowledge, but also forms practical and social skills necessary for self-realization. Following the basic principles of education helps to raise a generation capable of critical thinking, finding innovative solutions and effectively interacting in the modern world.

CONCLUSIONS

When organizing the educational process, regardless of the chosen form (face-to-face, distance, mixed mode), in the event of the “Air Alert” signal or other notification signals being activated, it is necessary to ensure unconditional interruption of training.

Algorithm of actions of the teacher and the responsible person during training sessions.

Preparatory measures:

Participants of the educational process must be familiarized in advance with the location of the protective structures, as well as the rules of conduct during evacuation and shelter in protective structures.

¹² On ensuring psychological support for participants in the educational process under martial law in Ukraine. Letter of the Ministry of Education and Science of Ukraine No. 1/3737-22 dated 03/29/22. URL: https://osvita.ua/legislation/Ser_osv/8616

If more than one institution is assigned to one protective structure, then the distribution of participants of the educational process according to the available protective structures is carried out taking into account their capacity and location on the terrain.

Participants of the educational process must be able to perform measures from the Emergency Response Plan or the Instructions of the educational institution in advance, which are provided for in the event of receiving a signal.

The educational institution must place all direction indicators in advance for the rapid and safe conduct of evacuation measures for participants in the educational process.

During evacuation and sheltering in a protective structure, participants in the educational process must be accompanied by a responsible person from among the employees of the educational institution.

Responsible persons are established in advance, who after evacuation will check the institution for the presence of students outside the protective structure.

Assistants should be assigned to teachers accompanying younger classes.

A medical worker must be in a designated place for him to quickly provide medical assistance.

Persons responsible for evacuation must be located near the exit from the protective structure to monitor the order of sheltering participants in the educational process and quickly respond if it turns out that someone is missing.

Students or entire classes that are in the courtyard of the institution must move under the supervision of a teacher or independently to the protective structure during an alarm signal.

Inside the protective structure, responsible persons must ensure that students quickly and carefully take their places. After all students have taken their places, the class teacher must check that all students are present.

While in the protective structure, teachers and responsible persons must take measures to calm children and everyone else in it.

Actions of teachers in the event of classes and the activation of alarm signals

In the event of an “Air alarm” signal:

1. The responsible person (duty officer) gives the “Air alarm” signal with the school bell.

2. The teacher notifies students of the threat, lines up students in the classroom, and escorts the line of students to the shelter (according to a specified route and schedule).

3. Other school employees may be involved in escorting primary school students.

4. The responsible person (deputy director for educational work) after announcing the alarm signal checks all premises of the institution for the absence of children and employees, upon completion of the check, goes to the shelter.

5. Students who are in the courtyard of the institution, during the alarm signal, under the guidance of the teacher on duty, move to the shelter.

6. Inside the shelter, teachers must help participants in the educational process to quickly and calmly take the places designated for the class, report to the deputy director for educational work about the number of people in the shelter and the number of children who were in class before the alarm signal.

7. While in the shelter, teachers organize meaningful activities for students, provide the necessary psychological support and measures for a calm stay in a closed room.

After the danger is over and the alarm is announced, teachers, under the guidance of the deputy, organize the removal of students from the shelter according to the schedule.

The calm movement of children with special educational needs to the shelter is carried out by subject teachers and the psychological service of the institution.

To quickly provide medical care, a nurse of the institution is present in the shelter, who monitors the health of students and employees, air temperature and humidity, and compliance with anti-epidemic requirements.

Disinfection and wet cleaning are carried out after each use of the shelter (including cleaning and disinfection of door handles, tables, seats, railings, etc.

SUMMARY

This research examines the multifaceted challenges facing educational systems during armed conflicts, with particular focus on Ukraine's response to Russian aggression and its implications for preserving academic continuity and supporting children's developmental needs. The systematic destruction of educational infrastructure presents not merely a logistical challenge but threatens the intellectual sovereignty and long-term cognitive development of an entire generation exposed to trauma and disrupted learning environments. Analysis of data from Ukraine's Ministry of Education reveals alarming educational losses, with only 58% of students achieving basic mathematical literacy and 59% demonstrating reading proficiency—statistics significantly below OECD averages and exacerbated by forced displacement, frequent learning interruptions due to air raids, and widespread destruction of physical

learning spaces. The research identifies critical response mechanisms including digitization of educational resources, development of comprehensive evacuation protocols, implementation of distance learning frameworks for displaced populations, and creation of psychological support systems that address trauma's impact on cognitive functioning.

Educational resilience during wartime requires coordinated action across governmental, international, and community stakeholders to establish secure learning environments that balance immediate safety concerns with long-term academic development goals. Innovations emerging from crisis conditions—including hybrid learning models, secure digital repositories for academic records, and contextually relevant curriculum adaptations—demonstrate that educational systems can maintain functional continuity despite severe external pressures. The study proposes that investments in educational infrastructure during conflict represent not merely humanitarian interventions but strategic imperatives for post-war recovery and development of human capital. Beyond technical solutions, this research emphasizes the critical importance of emotional support systems and community engagement in maintaining children's motivation and developing resilience in challenging circumstances. The findings contribute to an emerging framework for emergency education policy that balances immediate response to educational disruption with sustainable systems that preserve knowledge transmission during prolonged conflicts.

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