



# EDUCATION DURING WAR:

## The Ukrainian Schools' Experience

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This analytical report presents the results of a study on the experience of Ukrainian secondary schools in adapting to work under martial law after 2022. The report summarizes the challenges faced by secondary education in Ukraine during the full-scale invasion, outlines practices and solutions used by Ukrainian schools to effectively organize the educational process under wartime conditions, and describes several operational models of secondary schools in crisis situations.

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# List of Acronyms and Symbols

n.d.	Source with no publication date
GDP	Gross Domestic Product
IDPs	Internally Displaced Persons
SSSU	State Statistics Service of Ukraine
SFA	State Final Attestation
AFU	Armed Forces of Ukraine
CMU	Cabinet of Ministers of Ukraine
MIA	Ministry of Internal Affairs of Ukraine
MFA	Ministry of Foreign Affairs of Ukraine
MoES	Ministry of Education and Science of Ukraine
AY	Academic Year
NUS	Concept for Implementing State Policy on Reforming General Secondary Education “New Ukrainian School”
OECD	Organisation for Economic Co-operation and Development
UN	United Nations
TOT	Temporarily Occupied Territories
(‡)	The symbol “double dagger” in brackets is used to indicate that the source of information comes from interviews and / or focus groups conducted as part of this study.

# FOREWORD:

## CONTEXT AND RESEARCH METHODOLOGY

Since the beginning of Russia's full-scale invasion, Ukraine's secondary education system has faced unprecedented challenges and problems. These challenges include the impact of the lack of in-person learning during the COVID-19 pandemic, leading to learning losses and a decline in education quality; the destruction of schools; mass migration of the population (students, their parents, teachers); occupation of territories where Ukrainian students and educators live; collaboration of some educators with the occupying authorities; reduced funding for education; lack of resources for the proper implementation of the "New Ukrainian School" reform; at times, destructive and / or populist educational policy decisions; a shortage of teachers in certain subjects; insufficient shelters; deteriorating psycho-emotional state and constant stress of educational process participants; inability to resume in-person learning in certain regions of Ukraine, among other issues. Damage to power plants and heating facilities has led to power outages, a lack of hot water, unstable communication, and heating problems, posing significant challenges for organizing the educational process in blended and distance formats.<sup>1</sup>

There is a clear correlation between active phases of hostilities, the destruction of educational infrastructure, and the increase in the number of refugees. During the first hundred days of the full-scale Russian invasion (February 24 — June 2, 2022), when Russian forces attempted to capture Kyiv, Chernihiv, Sumy, and Kharkiv, and established control over Kherson, Mariupol, Berdyansk, and Melitopol, Ukrainian schools suffered the most extensive damage. Attacks continued in the summer of 2022, when the aggressor withdrew from northern Ukraine, retreated from Kyiv, and concentrated efforts on capturing the cities of Sievierodonetsk and Lysychansk. During that summer, the number of destroyed and damaged buildings doubled. In the fall of 2022, Ukrainian forces successfully conducted counteroffensive actions in the Kharkiv and Kherson regions, liberating key settlements, including Kherson, the only regional capital occupied by Russia. At this time, the Russians changed their tactics and launched large-scale missile strikes on critical infrastructure. From October 2022 and throughout the winter, Ukraine was subjected to missile attacks, and Russian weapons also hit Ukrainian schools.

During the winter of 2022 / 2023, the Russians aimed to capture the city of Bakhmut in the Donetsk region, which they took under control only in the spring of 2023. In the summer of 2023, Ukrainian forces focused on the Zaporizhzhia region, attempting to advance toward the Sea of Azov and disrupt stable rail connections with occupied Crimea. During this period, the number of destroyed schools in the Zaporizhzhia region increased. In the fall and winter of 2023 / 2024, the Russians continued their offensive in the Donetsk region, capturing Avdiivka. At this time, they intensified missile and artillery attacks on the border areas of the Sumy and Kharkiv regions, attempting to reclaim lost positions in this region. With each passing day of Russia's so-called "special military operation", Ukraine's

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<sup>1</sup> Riy, G., & Nikolaiev, Ye. (2023). Ukrainian education during a full-scale invasion: First year. <https://ukrainian-studies.ca/2023/05/18/ukrainian-education-during-a-full-scale-invasion-first-year>

educational infrastructure continues to suffer increasing damage and destruction (see Figure 1).

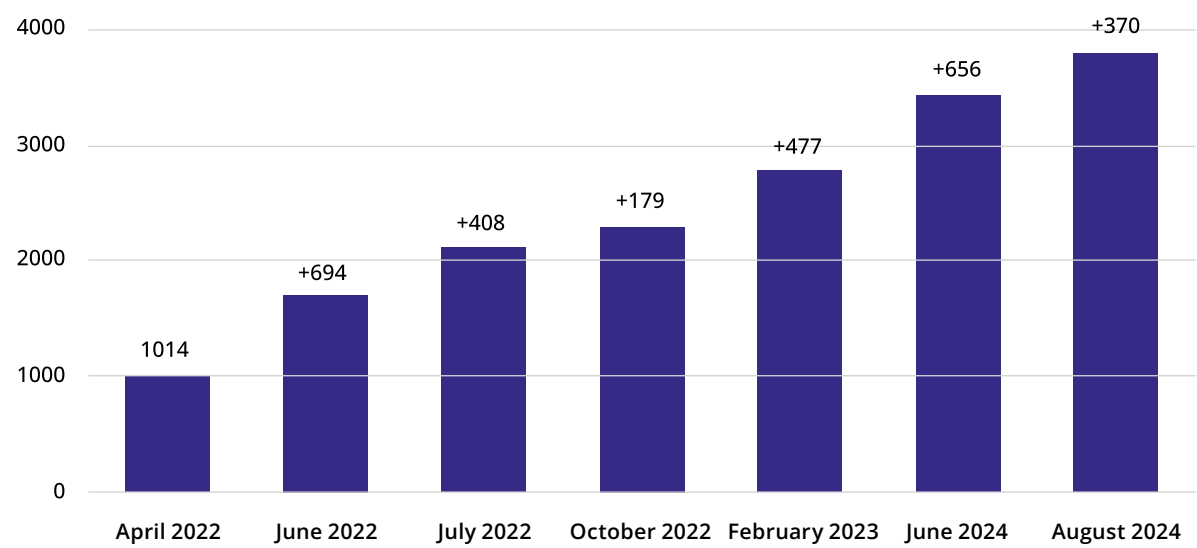


Figure 1. Dynamics of Damage to Educational Institutions in Ukraine, units<sup>2</sup>

According to the data from the Special Representative of the UN Secretary-General for Children and Armed Conflict, 1,650 attacks were carried out on schools and hospitals in various “hot” zones<sup>3</sup> in 2023, with 243 schools in Ukraine being affected. This puts Ukraine in first place globally, with more than twice the number of attacks compared to Pakistan, where 117 attacks were recorded (Figure 2).

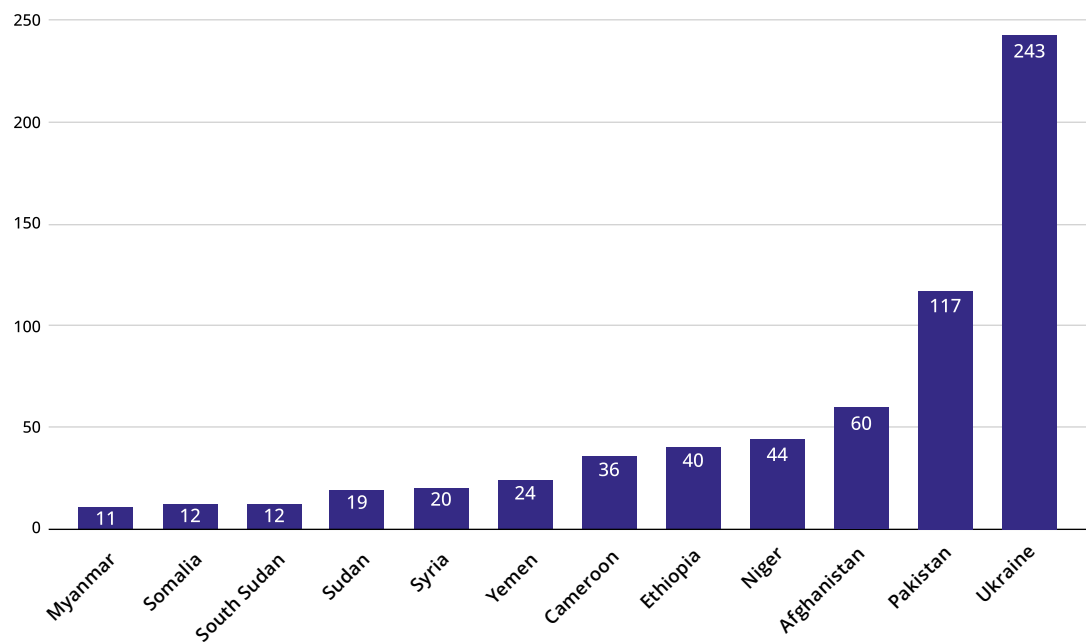


Figure 2. Number of Attacks on Schools in Selected Countries, 2023<sup>4</sup>

<sup>2</sup> Education under Threat. (n.d.). [In Ukrainian] <https://saveschools.in.ua/>.  
<sup>3</sup> United Nations. (2024). Children and armed conflict. Report of the Secretary-General. <https://undocs.org/en/S/2024/384>  
<sup>4</sup> United Nations. (2024). Children and armed conflict. Report of the Secretary-General. <https://undocs.org/en/S/2024/384>



War negatively affects all the educational process participants. The onset of full-scale military actions in Ukraine triggered the largest refugee crisis in Europe since World War II. Over two years, more than 6.5 million people left Ukraine. Another 3.5 million became internally displaced persons (IDPs)<sup>5</sup>. In 2023 alone, approximately three-quarters of a million people from eastern and southern Ukraine, where active fighting took place<sup>6</sup>, became new IDPs. According to one estimate, as of January 2024, 4.9 million Ukrainians were living abroad, primarily women aged 35–44 and children who found refuge in Germany (30 % of the total) or Poland (22 %) and other countries<sup>7</sup>. A little over a half of them expressed a desire to return to Ukraine<sup>8</sup>. However, 18 % of Ukrainian students intend to study abroad after finishing school<sup>9</sup>.

There are many examples worldwide of the devastating impact of wars and civil conflicts on education systems. In the past 20–30 years alone, military actions and humanitarian crises have destabilized or completely disrupted children's education in the Balkans, South Sudan, Nepal, Israel, Syria, Yemen, and others. Statistics show that during war, up to 40 % of schoolchildren may lose access to education<sup>10</sup>. In some of these countries, schooling was halted for months or even years, with educational systems completely destroyed and requiring long-term recovery.

Fortunately, Ukraine has avoided such an apocalyptic scenario. Its secondary education system has demonstrated remarkable resilience. Immediately after Russia's attack on February 24, 2022, all Ukrainian schools announced emergency term breaks. Just a few weeks later, schools began resuming the educational process. Breaks lasted the longest in regions close to active hostilities, but even there, schools resumed operation by September 2022 at the latest.

Education under martial law continues, albeit sometimes interrupted by air raid alerts. The experience gained during the COVID-19 pandemic with remote work and learning proved useful, helping schools operate effectively in a blended format and allowing lessons participation for the students who relocated to other regions of Ukraine, abroad, or have a disability. Schools are utilizing a wide range of modern Ukrainian and international technological solutions, software, online tools and platforms, and implementing various models of synchronous and asynchronous learning. Schools with shelters have resumed in-person learning, developing action plans for future emergencies. The system of transporting students to rural schools is being restructured. A significant number of students are gaining a unique multicultural experience by attending local schools in their host countries while also studying remotely at their Ukrainian institutions.

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<sup>5</sup> UNHCR. (2024). Ukraine emergency. <https://www.unhcr.org/emergencies/ukraine-emergency>

<sup>6</sup> UNHCR. (2024). Global Trends 2023. P. 9.

<https://www.unhcr.org/sites/default/files/2024-06/global-trends-report-2023.pdf>

<sup>7</sup> Mykhailyshina, D., Samoiluk, M., Tomilina, M., Myronenko, O., & Levchenko, E. (2024). Ukrainian refugees. Future abroad and plans to return. Analytical note. Center for Economic Strategy. P. 4. [In Ukrainian] [https://ces.org.ua/wp-content/uploads/2024/03/refugees\\_wave\\_three.pdf](https://ces.org.ua/wp-content/uploads/2024/03/refugees_wave_three.pdf)

<sup>8</sup> Ibid. P. 5–6.

<sup>9</sup> Kogut, I., Nikulina, O., Syrбу, O., Zheryobkina, T., & Nazarenko, Yu. (2023). War and Education: How a Year of Full-Scale Invasion Affected Ukrainian Schools. CEDOS, savED. P. 70. [In Ukrainian] <https://cutt.ly/eezjcd3E>

<sup>10</sup> UNICEF. (2015). Conflict drives 13 million children out of school in the Middle East and North Africa. <https://www.unicef.org/mena/press-releases/conflict-drives-13-million-children-out-of-school>

Dozens, if not hundreds, of large-scale public, state, and international initiatives are being implemented to address learning losses, provide psychological support to teachers and students, equip shelters, rebuild and provide material and technical support to damaged or destroyed schools.

Ukrainian schools have accumulated significant experience in finding and implementing unique educational solutions for adapting to work under martial law. These solutions pertain to determining learning formats (in-person, remote, various models of blended learning), the forms of education schools offer students (institutional, family-based, or external studies), planning the educational process, motivation systems, psychological support for students and teachers, interaction with parents, ensuring the safety of all participants in the educational process. However, this experience is not well-studied and remains largely unknown to the broader public. This highlights the need for research and systematization of the crisis-time educational solutions tested in Ukraine, which could also be useful for other countries facing similarly difficult circumstances.

In this context, the goal of our research is to study and summarize the experience and approaches of Ukrainian secondary schools to adapting to work under martial law since 2022.

**To achieve this goal, the following research tasks have been identified:**

1. Summarize the international experiences in organizing school education during crises.
2. Analyze the policies of the Ministry of Education and Science of Ukraine on the organization of the educational process in secondary schools under full-scale military invasion.
3. Identify the main challenges schools face when adapting to wartime conditions.
4. Describe the typical approaches for adapting educational institutions to war conditions.
5. Characterize the main models of education in secondary schools under martial law.

*By “typical approaches”, we refer to practices and solutions implemented in Ukrainian schools that allow for effective organization of the educational process during war (importantly, these practices/solutions are not necessarily “exemplary” or “best”).*

The originality of these tasks lies in the fact that, despite sufficient coverage of blended learning models in international publications, Ukraine has its own empirical experience in organizing the educational process during war. Some of the approaches tested by Ukraine at the level of individual schools and overall educational policy are similar to those used by other countries, while others are unique steps taken under extraordinary circumstances. Relevant parallels with international experiences are outlined in the main text of this analytical report.

This study, presented to readers, draws on several diverse sources of information processed during the theoretical (desk) and empirical stages of the work.

During the desk research phase, the project experts summarized international experiences of education systems functioning under civil conflicts and wars through content analysis of international publications. This review allows for analogies to be drawn with solutions implemented in Ukraine. The “documented” and published body of Ukrainian experience has been examined based on various sources of information (such as analytical publications and reports, academic articles, books, media), where relevant statistical data is also provided. The dynamics of decision-making in Ukraine’s educational policy are outlined based on a review of legislation and specific political documents issued by public authorities.

In the empirical part of the study, we conducted a series of semi-structured focus groups and in-depth interviews with the heads of various Ukrainian schools to identify differences in approaches to organizing the educational process in different regions of Ukraine and to identify unique practices adopted by educational institutions under martial law. Questionnaires for conducting interviews and focus groups are provided in Annex 1. The selection of these schools was based on the criterion of having unique experiences, such as the internal relocation of the entire school to another region of Ukraine, operating in underground metro facilities, large-scale remote learning, and more<sup>11</sup>. The series of focus groups with the heads of secondary schools was made possible with the help of regional branches of the State Service for Education Quality of Ukraine. Our colleagues have suggested schools for participation in the focus groups that have practices valuable for the context of this research and provided general and contact information about these educational institutions.

As part of our research, seven focus groups with the heads of various Ukrainian schools were conducted in an online format. In six of the focus groups, we spoke with the management of public secondary schools, grouped by region. The seventh focus group included representatives from the private sector of secondary education. In total, representatives of 47 secondary schools participated in the focus groups:

- Focus Group “West-1”<sup>12</sup>: Volyn, Rivne, Lviv, and Khmelnytskyi regions; representatives of six schools participated in the online meeting.
- Focus Group “West-2”: Zakarpattia, Ivano-Frankivsk, Ternopil, and Chernivtsi regions; representatives of seven schools participated.

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<sup>11</sup> Individual interviews were conducted with the heads of the following educational institutions:

- Apostoliv Lyceum No. 1, Dnipropetrovsk region;
- Bohdaniv gymnasium of the Velikodymer community, Kyiv region;
- Distance school “Optima”;
- Zagalstiv Lyceum of the Borodyan Settlement Council, Kyiv region;
- Kyiv Gymnasium of Oriental Languages No. 1, Kyiv;
- Lyceum No. 16 of the Melitopol City Council, Zaporizhzhia region;
- Mariupol Lyceum of the city of Kyiv;
- Mykhailo-Kotsyubinsky Lyceum, Chernihiv region;
- Chervonodolyn Lyceum of Shirokivska Village Council, Mykolaiv Region;
- Metro school, Kharkiv (interview with the director of the Department of Education of the Kharkiv City Council).

<sup>12</sup> The grouping of regions of Ukraine into macro-regions for conducting focus groups was carried out in accordance with the sample described in: The State Service of Education Quality of Ukraine. (2023). Study of the quality of the organization of the educational process in the conditions of war in the 2022/2023 academic year. P. 4. [In Ukrainian] <https://sqe.gov.ua/wp-content/uploads/2023/04/yakist-osvity-v-umovah-viyny-web-3.pdf>

- Focus Group “North”: Zhytomyr, Sumy, Chernihiv, Kyiv regions, and the city of Kyiv; representatives of nine schools participated.
- Focus Group “Center”: Vinnytsia, Kirovohrad, Poltava, and Cherkasy regions; representatives of seven schools participated.
- Focus Group “South”: Zaporizhzhia, Mykolaiv, Odesa, and Kherson regions; representatives of six schools participated.
- Focus Group “East”: Dnipropetrovsk, Donetsk, Luhansk, and Kharkiv regions; representatives of six schools participated.
- Focus Group “Private Schools”: Representatives of six schools from different regions of Ukraine participated.

Information about the schools with which we conducted focus group interviews (our sample is not representative) allows us to make several observations.

- The proportion of students who are distance learners from abroad for schools located in areas relatively distant from combat zones is around 10 %. For schools closer to combat zones, this proportion reaches 30 % or higher.
- Schools have an average of 7 % of students with internally displaced person (IDP) status.
- One-third of schools reported in-person learning in the spring semester of 2024; half of the schools operate in a blended mode; 15 % offer full-time remote learning to students.

Participants in the interviews and focus groups shared with us some of their schools’ regulatory and methodological materials, which we analyzed, as well as photos used in this publication. Some of the unique experiences shared by the respondents are presented in the report as case studies. References to the materials from our interviews and focus groups are marked with a double dagger symbol in brackets: (§). When respondents provided sensitive information or candidly discussed their own violations of certain rules or current legislation, we presented such quotes anonymously.

The characterization of models for organizing the educational process in secondary schools under war conditions was based on the summary of analyzed experiences and successful case studies. These models offer different “sets of solutions” for different regions of Ukraine, depending on the security and resource conditions in which secondary schools operate. Using the method of pedagogical modeling, the models of organizing the educational process were described as an integrated system characterized by openness to external influences, adaptability, and flexibility. The models reflect the main characteristics of the educational process, the roles and interactions of participants, the conditions for their application, advantages and disadvantages, the structure and functions of the educational environment.

This analytical report is published in both Ukrainian and English versions.

# CHAPTER 1. INTERNATIONAL EXPERIENCE IN ORGANIZING SCHOOL EDUCATION DURING CRISES

The term “crisis” has Greek origins. It was initially used in medicine to denote a critical moment when a patient either recovers, deteriorates, or dies. Later, it was also used in politics, economics, psychology, and other sciences<sup>13</sup> “to mark the moment at which the world loses its normal order and becomes problematic.”<sup>14</sup> However, the key to understanding a crisis is not the hard times but the turning point, when at a specific historical moment, the fate of an entire domain is decided. By analogy with its original (Greek) meaning, crisis can have not only negative but also positive consequences.<sup>15</sup>

Education in crisis conditions can be viewed in three stages: the stage of crisis prevention, crisis response, and the post-crisis period<sup>16</sup>. Our study examines education at the stages of crisis response and adaptation. For the functioning of educational institutions under such conditions, another term is used — “emergency education.” It typically refers to the organization of the educational system for populations affected by unforeseen situations, such as armed conflicts or natural disasters<sup>17</sup> when children do not have access to their national education systems.<sup>18</sup> For UNESCO, it signifies “a crisis situation created by conflicts or disasters which have destabilized, disorganized or destroyed the education system, and which require an integrated process of crisis and post-crisis response”<sup>19</sup>

Examples of education in crisis conditions that may be relevant for the adaptation of Ukrainian schools to martial law conditions include the organization of schooling in North America and Europe during the COVID-19 pandemic, where schools were closed, and physical contact was restricted, as well as in African countries, the Middle East, and the Balkans, which have recently experienced or continue to experience armed conflict. This chapter analyzes the experience of responding to crises and the adaptation of general secondary education systems in specific countries in these regions.

## Adaptation of Schools in the USA, Canada, France, the United Kingdom, and Finland to Education during the COVID-19 Pandemic

The primary model for ensuring the continuity of the educational process during the imposition of quarantine restrictions in certain countries in North America and Europe

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<sup>13</sup> Zembylas, M., Baildon, M., & Kwek, D. (2022). Responsive education in times of crisis. *Asia Pacific Journal of Education*, 42(sup1), 1–5. <https://doi.org/10.1080/02188791.2022.2066224>

<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

<sup>16</sup> Kariyawasam, A. (n.d.). Even in times of crisis, education is a fundamental human right. UNESCO MGIEP. <https://mgiep.unesco.org/article/even-in-times-of-crisis-education-is-a-fundamental-human-right>

<sup>17</sup> Sinclair, M. (2007). Education in emergencies. *Commonwealth Education Partnerships*. <https://www.cedol.org/wp-content/uploads/2012/02/52-56-2007.pdf>

<sup>18</sup> Ibid. P. 4.

<sup>19</sup> Ibid.

was blended learning<sup>20</sup>. Specifically, during the pandemic, developed countries adopted the following measures to maintain the educational process:

- Provided students with laptops and ensured access to the Internet<sup>21</sup>; education was mainly organized asynchronously, with students receiving printed materials at home, although these were used minimally.<sup>22</sup> (USA)
- Established an interagency Education Taskforce, which developed models for adapting education, including the possibility of adjusting class sizes, creating smaller cohorts, implementing flexible schedules, and using blended learning to support social distancing.<sup>23</sup> (Canada)
- Introduced a special “Continuity of Education” system aimed at ensuring the ongoing educational process during quarantine<sup>24</sup>; continued in-person learning in schools for children of essential workers crucial to the country’s functioning.<sup>25</sup> (France)
- Provided daily meals for students from low-income families<sup>26</sup>; recommended that schools extend the academic year by shortening summer vacations and organizing students’ stays in summer camps, as well as lengthening the school day to partially compensate for missed learning material.<sup>27</sup> (United Kingdom)
- Opened an email hotline to provide schools with advice on coronavirus<sup>28</sup>; supported teachers and students in transitioning to distance learning<sup>29</sup>; delegated the decision-making authority regarding the format of the educational process to local authorities; updated the national framework curriculum for compulsory education, which included a list of knowledge and skills related to digital competence, data handling, and information management.<sup>30</sup> (Finland)

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<sup>20</sup> Siripipatthanakul, S., Muthmainnah, M., Asrifan, A., Siripipattanakul, S., Kaewpuang, P., Sriboonruang, P., Limna, P., Jaipong, P., & Sitthipon, T. (2023). Blended Learning and Online Learning During the COVID-19 Pandemic in Asrifan, A. & Faradillah, N. (Ed.), *Interdisciplinary Research: Collaborative Insights* (Vol. 1, pp. 44–54). India: Island Publishers. <https://ssrn.com/abstract=4375583>

<sup>21</sup> National Center for Education Statistics (NCES). (2022). US Education in the Time of COVID. <https://nces.ed.gov/surveys/annualreports/pdf/Education-Covid-time.pdf>

<sup>22</sup> Reimers, F. M. (2022). Primary and secondary education during COVID-19: Disruptions to educational opportunity during a pandemic. P. 387. <https://doi.org/10.1007/978-3-030-81500-4>

<sup>23</sup> Rizk, J., Gorbet, R., Aurini, J., Stokes, A., & McLevey, J. (2022). Canadian k-12 schooling during the covid-19 pandemic: Lessons and reflections. *Canadian Journal of Educational Administration and Policy*, 201. <https://journalhosting.ucalgary.ca/index.php/cjeap/article/view/74146>

<sup>24</sup> Reimers, F. M. (2022). Op. cit. P. 386.

<sup>25</sup> Reimers, F. M. (2022). Op. cit. P. 386.

<sup>26</sup> McInerney, L. (2020). The impact of Coronavirus on education in the UK. <https://www.cambridge.org/partnership/research/The-impact-of-Coronavirus-on-education-in-the-UK>

<sup>27</sup> Defeyter, M.A., von Hippel, P., Shinwell, J., Mann, E., Henderson, E., Brownlee, I., Pepper, G., Stretesky, P., Long, M., McKenna, J., Daly-Smith, A., Lalli, G., Bundy, D., & Drake, L. (2020). Covid-19: Back to School, Rebuilding a Better Future for All Children. <https://committees.parliament.uk/writtenevidence/3787/pdf/>

<sup>28</sup> Finnish National Agency for Education. (2020). Education in Finland and the coronavirus. <https://www.oph.fi/en/education-and-qualifications/education-finland-and-coronavirus>

<sup>29</sup> *Finland: Covid-19 and vocational education and training*. (2020, July 13). CEDEFOP. <https://www.cedefop.europa.eu/en/news/finland-covid-19-and-vocational-education-and-training>

<sup>30</sup> Reimers, F. M. (2022). Op. cit. P. 108.

Based on the analysis of practices from other countries regarding the organization of education during quarantine, we can identify several options for blended learning<sup>31</sup>:

- Combining different learning formats within a single class (mainly in-person learning combined with various methods of working with electronic resources and online courses).
- Combining in-class learning with independent study at home.
- Combining distance learning through printed materials with the use of electronic resources.
- A mix of in-person and distance learning within a class or the entire school (where some students, grouped into cohorts, or entire classes, study in-person or remotely on certain days or for specific subjects depending on set priorities).

The main advantage of such a learning model in crisis conditions was the continuity of the educational process, flexibility, and the ability to accommodate the learning pace of students.<sup>32</sup> However, the primary challenges included insufficient access to necessary technical devices for participants in the educational process, low levels of digital competence (except in Finland), insufficient student engagement in online learning, issues with a sense of involvement in the learning process and communication between students and teachers, as well as a decline in attendance rates.<sup>33</sup>

## **Education During Armed Conflicts: Case Studies from Africa, the Middle East, and the Balkans**

### **Ethiopia**

In November 2020, Ethiopia faced an internal conflict known as the Tigray War, which ended in November 2022. This conflict, between the federal state of Tigray and its ruling party and the central government, coincided with the COVID-19 pandemic and echoed the earlier Ethiopian Civil War of the early 1990s.

The educational system in Ethiopia suffered severely due to the conflict, compounded by issues such as poor educational infrastructure, global warming, hunger, and the internal displacement of children. According to UNICEF, by the end of 2022, the number of school-aged children not attending school in Ethiopia had risen to 3.6 million. Over 8,700<sup>34</sup> schools were damaged, and in Tigray, more than 20,000 teachers had not been paid for

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<sup>31</sup> Linnick, O. (2023). Blended learning as a strategy for adapting the educational process at school to the war. *Pedagogical education: Theory and practice. Psychology. Pedagogy*, 39(1). P. 25–32. [In Ukrainian]

<sup>32</sup> Cobo, C., Sabarwal, S., Boni, A., & Abu-Jawdeh, M. (2023). Why blended learning is (still) relevant. <https://blogs.worldbank.org/en/education/why-blended-learning-still-relevant>

<sup>33</sup> Siripipatthanakul, S. et al. (2023). Op. cit.

<sup>34</sup> *Increasing number of children pushed out of education in Ethiopia due to severe drought, conflict and forced displacement — Ethiopia | reliefweb*. (2022, December 7). <https://reliefweb.int/report/ethiopia/increasing-number-children-pushed-out-education-ethiopia-due-severe-drought-conflict-and-forced-displacement>



over two years.<sup>35</sup> Even after a ceasefire, only 65 % of schools reopened<sup>36</sup>, and schools in Tigray remained closed for two years.<sup>37</sup>

The educational infrastructure sustained massive damage, with 90.8 % of respondents in a survey reporting that they and their families were displaced and unable to attend educational institutions.<sup>38</sup> As schools began to reopen, many families could not afford the costs of education, uniforms, textbooks, and supplies.<sup>39</sup> The diversion of significant public funds to military needs hindered the swift recovery of schools and the educational process.<sup>40</sup>

In the eastern part of Tigray, 80.5 % of schools were damaged, forcing students to attend other schools that were less damaged. The long distances that one had to walk to school daily contributed to a decline in the number of students and teachers.<sup>41</sup>

The Ethiopian government, along with international donor organizations, focused on rebuilding schools, providing psycho-emotional support to students, reducing gender inequality in access to education, increasing school attendance, and improving the quality of the educational process.<sup>42</sup>

These efforts led to significant increases in attendance in some schools, but the educational system still requires financial and administrative support. The crisis negatively affected the results of the national exams for the 2022 / 2023 academic year, with almost half (43 %) of students failing to achieve the necessary scores to continue their education<sup>43</sup>

## South Sudan

On July 9, 2011, the Republic of South Sudan gained independence after two decades of civil war.<sup>44</sup> However, on December 15, 2013, an ethnic civil war erupted again between the Dinka and Nuer tribes. A peace agreement was signed in 2018, and the war was officially declared over on February 22, 2020<sup>45</sup>. However, security on the streets of South Sudan remained poor.<sup>46</sup>

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<sup>35</sup> Hou, M. (2023). The biggest education crisis in Ethiopia.

<https://borgenproject.org/the-biggest-education-crisis-in-ethiopia/>

<sup>36</sup> UNESCO. (2023). Education in Emergencies (EiE) scoping note for Ethiopia: national priorities for action and system strengthening. P.4. <https://unesdoc.unesco.org/ark:/48223/pf0000389047.locale=en>

<sup>37</sup> Atsbeha, M., & Novak, D. (2023). In Ethiopia's Tigray, Children Return to School but Trauma Remains.

<https://learningenglish.voanews.com/a/in-ethiopia-s-tigray-children-return-to-school-but-trauma-remains/6995762.html>

<sup>38</sup> Assefa, Y., Tilwani, S. A., & Moges, B. T. (2023). The impact of armed violence on educational institutions, students' educational attainment and the role of actors in governance of the education process. *Cogent Education*, 10 (1), 2189503. <https://doi.org/10.1080/2331186X.2023.2189503>

<sup>39</sup> Tekulu, F. B., Asgedom, D. B., Gebre, H. T., Desta, G. M., Shifare, T. H., Gebremariam, H., & Hadigu, T. B. (2023).

*The effect of war on educational institutions of eastern Tigray zone, Tigray state, Ethiopia.*

<https://doi.org/10.21203/rs.3.rs-2784163/v1>

<sup>40</sup> Assefa, Y. et al. (2023). Op. cit.

<sup>41</sup> Tekulu, F. B. et al. (2023). Op. cit.

<sup>42</sup> Ibid.

<sup>43</sup> Tiruneh, D. T., & Molla, T. (2023, November 23). *Ethiopia's education system is in crisis — now's the time to fix it*. The Conversation. <https://theconversation.com/ethiopias-education-system-is-in-crisis-nows-the-time-to-fix-it-217817>

<sup>44</sup> *The South Sudan crisis, explained: 5 things to know in 2024*. (n.d.).

<https://concernusa.org/news/south-sudan-crisis-explained/>

<sup>45</sup> Ibid.

<sup>46</sup> Ibid.



The conflict had a devastating impact on the country's educational capacity. Some 3.4 million children were affected, most of them becoming temporarily displaced and suffering from hunger and poverty<sup>47</sup>. School attendance dropped significantly, with each of the schools affected by war losing an average of 85 pupils per year. Over four years, these schools lost a total of 340 students each, representing 73.9 % of enrollment.<sup>48</sup>

With the help of international humanitarian organizations, the country's authorities managed to rebuild some of the damaged schools and create temporary facilities for education. This allowed the continuation of the educational process in regions of South Sudan where it was feasible. Government officials also developed teaching materials in subjects like English, mathematics, and others according to South Sudan's standards. Additionally, special training was provided to local teachers on offering psychological support, the importance of hygiene, principles of equality, and basic mine safety.<sup>49</sup>

The main challenges facing secondary education in South Sudan remain the lack of funding, the need for long-term investment programs in education, access to educational institutions, and gender inequality.<sup>50</sup>

## Cameroon

The conflict in Cameroon has deep roots dating back to colonial times when the country's territories were divided between the British and French Empires<sup>51</sup>. The crisis escalated in October 2016 when the demands of teachers and lawyers for reforms in the educational and judicial systems in Anglophone regions were violently suppressed<sup>52</sup>. People protested against working and studying in French, which led to harsh government crackdowns and civilian casualties<sup>53</sup>. Although in October 2022, negotiations between the French- and English-speaking parties began, this did not stop the conflict, which claimed the lives of 6,000 civilians and led to the internal displacement of 630,000 people<sup>54</sup>.

The educational process in Anglophone regions became highly problematic due to the inaccessibility of schools and the high danger levels. Schools in these regions were forced to close due to constant gunfire, school fires, abductions, and killings of students, teachers, parents, and civilians, as well as pressure on Francophone teachers in Anglophone areas<sup>55</sup>.

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<sup>47</sup> *Back to school: How we get kids to class during conflict.* (2015). Mercy Corps.  
<https://europe.mercycorps.org/en-gb/blog/south-sudan-school-during-conflict>

<sup>48</sup> Mayai, A. T. (2022). War and Schooling in South Sudan, 2013–2016.  
[https://archive.nyu.edu/bitstream/2451/63844/2/JEiE\\_Vol8No1\\_War-and-Schooling-in-South-Sudan\\_March2022.pdf](https://archive.nyu.edu/bitstream/2451/63844/2/JEiE_Vol8No1_War-and-Schooling-in-South-Sudan_March2022.pdf)

<sup>49</sup> *Back to school: How we get kids to class during conflict.* (2015).

<sup>50</sup> Mayai, A. T. (2022). Op. cit.

<sup>51</sup> Atabong, A. B. (2023). Explainer: The causes of Cameroon's six-year separatist conflict.  
<https://www.reuters.com/world/africa/causes-camerouns-six-year-separatist-conflict-2023-10-05/>

<sup>52</sup> Kinkoh, H. (2023). Time to resolve Cameroon's persistent yet forgotten crisis.  
<https://issafrica.org/iss-today/time-to-resolve-camerouns-persistent-yet-forgotten-crisis>

<sup>53</sup> Atabong, A. B. (2023). Op. cit.

<sup>54</sup> Ibid.

<sup>55</sup> Agbor, M. N., Etta, M. A., & Etonde, H. M. (2022). Effects of armed conflicts on teaching and learning: Perspectives of secondary school teachers in Cameroon. *Journal of Education*, 86, 1–19. <https://doi.org/10.17159/2520-9868/i86a09>

The government's key response was to pressure separatist groups to reduce tensions and allow schools to operate normally again. This effort was somewhat successful, and schools began reopening after years of closure<sup>56</sup>.

However, the conflict led to a drop in school attendance in the region. The constant danger and fear for their lives caused irregular school attendance among both teachers and students, resulting in a decline in teaching quality and inflated grades given by teachers to compensate for students' knowledge gaps<sup>57</sup>.

## Rwanda

In the early 1990s, about 85 % of Rwanda's population was composed of the Hutu ethnic group, with the rest being Tutsi, a small number of Twa, and indigenous people of Rwanda<sup>58</sup>. Historically, the Tutsi group had been privileged<sup>59</sup>. As a result, the Hutu began demanding justice and equality, leading to a revolution in 1959. In 1990, Tutsi refugees formed a rebel group and invaded Rwanda. The fighting continued until a peace agreement was signed in 1993. On April 6, 1994, a plane carrying the presidents of Rwanda and Burundi was shot down. Extremists blamed Tutsi refugees and initiated a genocide, killing about 800,000 Tutsi in 100 days in 1994.<sup>60</sup>

The ethnic conflict in Rwanda led to the closure of schools across the country. On average, students were unable to attend school for a year during the conflict. Additionally, after the schools resumed operations, there was a decrease in the number of female students due to financial problems in families. In the post-war period, patriarchal culture caused family resources to be concentrated on boys, who were sent to school first<sup>61</sup>.

The Rwandan government, aiming to improve its Human Capital Index as measured by the World Bank, prioritized the development of education and implemented measures to increase the number of years a Rwandan child spends in school<sup>62</sup>.

## Syria

The conflict in Syria began as anti-government protests in 2011, which President Bashar al-Assad decided to suppress with military force. These protests were part of the "Arab Spring." By 2012, the internal Syrian conflict had escalated into a regional one, and after the involvement of military forces from Iran, the United States, Russia, and Turkey, it became international<sup>63</sup>. Currently, the conflict is in a frozen state. The country is divided into four designated territories controlled by different sides of the conflict. Most of the country

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<sup>56</sup> CGTN Africa. (2023, June 16). *Schools at the heart of Cameroon's separatist conflict*. <https://africa.cgtn.com/schools-at-the-heart-of-camerouns-separatist-conflict/>

<sup>57</sup> Ibid.

<sup>58</sup> HISTORY. (2023). Rwandan genocide — Facts, response & trials. <https://www.history.com/topics/africa/rwandan-genocide>

<sup>59</sup> Ibid.

<sup>60</sup> BBC News. (2014). Rwanda genocide: 100 days of slaughter. <https://www.bbc.com/news/world-africa-26875506>

<sup>61</sup> Guariso, A., & Verpoorten, M. (2019). Armed conflict and schooling in Rwanda: Digging deeper. *Peace Economics, Peace Science and Public Policy*, 25 (1), 20180033. <https://doi.org/10.1515/peps-2018-0033>

<sup>62</sup> *How to prioritize education in a time of crisis*. (2022). World Bank Blogs. <https://blogs.worldbank.org/en/education/how-prioritize-education-time-crisis>

<sup>63</sup> 10 years of war in Syria. 10 main questions. (2021). [In Ukrainian] <https://www.bbc.com/ukrainian/features-56392809>

is controlled by Assad's regime, while the rest is divided among the Syrian opposition, Kurdish forces, and the Islamic State group<sup>64</sup>.

The country's education system, which had been quite extensive before 2011, with over 20,000 schools, had one of the highest literacy rates in the region<sup>65</sup>. In 2009, over 5 % of the country's GDP was spent on education<sup>66</sup>. After more than a decade of war in Syria, 7,000 schools were damaged or destroyed<sup>67</sup>, 2.4 million children were excluded from the education process, and over a million of them were in territories not controlled by Assad's government<sup>68</sup>.

The main problems of secondary education in the country include inaccessibility, low attendance, gender inequality, displacement, lack of educational facilities, poor economic conditions, and the psychological and emotional state of students and teachers<sup>69</sup>.

Challenges include the lack of standardized teaching materials across Syria, the absence of a unified curriculum (currently, each program is agreed upon with the authority controlling the region), the inaccessibility of private schools for most of the population due to high fees, and the decrease in the number of teachers<sup>70</sup>.

The Syrian government, in cooperation with international donor organizations, attempted to adapt the education process to the conditions of permanent military conflict. The United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) adapted its educational materials to the Syrian program for home learning and community centers<sup>71</sup>. With the help of international organizations, education for Syrian children has been organized in refugee camps located in the northern part of the country<sup>72</sup>.

In the territories controlled by Assad's government, education takes place in relatively safe conditions, but a shortage of classroom space has led to the introduction of two-shifts learning. The challenge in these territories remains the inclusion of internally displaced persons in the education process.

The situation with education in territories controlled by opposition forces is unstable: there is a shortage of qualified teachers, classrooms are underpopulated, and the Syrian government does not recognize the results of education or any documents issued by the opposition government. Some NGOs are trying to address educational issues in these areas, but they also lack qualified staff.

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<sup>64</sup> Al Hessian, M., Bengtsson, S., & Kohlenberger, J. (2016). Understanding the Syrian educational system in a context of crisis? *Vienna Institute of Demography Working Paper*. [https://epub.oeaw.ac.at/0xc1aa5576\\_0x003cd018.pdf](https://epub.oeaw.ac.at/0xc1aa5576_0x003cd018.pdf)

<sup>65</sup> Al-Arabi, A. (2023). The Current State of Education in Syria: A Mediocrity Contest. <https://assafirabari.com/en/57192/2023/12/26/the-current-state-of-education-in-syria-a-mediocrity-contest/>

<sup>66</sup> Ibid.

<sup>67</sup> UNICEF. (2018). Education: Every child has the right to learn. <https://www.unicef.org/syria/education>

<sup>68</sup> Ibid.

<sup>69</sup> Ibid.

<sup>70</sup> Al-Arabi, A. (2023). Op. cit.

<sup>71</sup> Al Hessian, M., Bengtsson, S., & Kohlenberger, J. (2016). Op. cit.

<sup>72</sup> Reliefweb. (2023). Schools in Northern Syrian Camps. Edition 06/ 2022–2023 Thematic Report. URL: <https://reliefweb.int/report/syrian-arab-republic/schools-northern-syria-camps-edition-06-2022-2023-thematic-report-enar>

Schools in Kurdish-controlled territories have suffered the most damage, but the education process continues. The curriculum in these regions is Kurdish and is taught in Kurdish, Arabic, and Syriac.

In areas controlled by the Islamic State group, the education process has been completely changed, and little is known about it<sup>73</sup>. Syrian refugees have gained access to schools and the education process in neighboring Turkey, Jordan, and Lebanon. Education is also taking place in schools in the north of the country, where refugee camps are located<sup>74</sup>.

The situation in Syria's secondary education remains difficult and negatively impacts students' academic performance. Tests conducted in reading and mathematics for secondary school students revealed significant learning losses: more than half of 6th and 7th graders and a third of 8th graders could not read a simple story of 7-10 sentences, which is a 2nd-grade level of achievement<sup>75</sup>.

## Israel

The Israeli-Palestinian conflict began after Jewish leaders declared the establishment of the State of Israel in 1948. As a result, Jordan occupied the West Bank, and Egypt occupied the Gaza Strip. Jerusalem was divided between Jordan and Israel. After the second war in 1967, Israel occupied East Jerusalem and the West Bank, most of the Syrian Golan Heights, the Sinai Peninsula, and the Gaza Strip, although it later withdrew from some of these territories. In the 1990s, agreements were reached to resolve the conflict, but tensions between Israel and the Palestinians living in East Jerusalem, Gaza, and the West Bank remained<sup>76</sup>. Since 2007, Gaza has been governed by the Hamas Islamic movement.

Despite the ongoing state of military conflict, Israel has managed to build a stable education system, characterized by a successful combination of compulsory secondary education with innovative teaching methods, a favorable learning environment, inclusivity, and a student-centered approach<sup>77</sup>. The stability of Israel's secondary education system was demonstrated by the 2022 PISA test scores, which, despite the COVID-19 pandemic, were on average the same as in 2018<sup>78</sup>. According to PISA 2022, the performance level of students in Israel's education system remained high, their sense of involvement improved, and they generally felt safer and were less likely to fall victim to bullying and other negative phenomena in their schools<sup>79</sup>.

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<sup>73</sup> Al Hessian, M., Bengtsson, S., & Kohlenberger, J. (2016). Op. cit.

<sup>74</sup> *Schools in Northern Syria Camps — Edition 06 / 2022–2023 Thematic Report — Syrian Arab Republic* | reliefweb. (2023). <https://reliefweb.int/report/syrian-arab-republic/schools-northern-syria-camps-edition-06-2022-2023-thematic-report-enar>

<sup>75</sup> International Rescue Committee. (2017). Impact of war on Syrian children's education. <https://www.rescue.org/sites/default/files/document/1434/educationreportlearninglevelssyrianchildrenfinal.pdf>

<sup>76</sup> BBC News Ukraine. (2021). The Israeli-Palestinian conflict: where it all started and what is happening. URL: <https://www.bbc.com/ukrainian/features-57059768>

<sup>77</sup> Secret Israel. (n.d.). What Makes Israel's Education System So Unique? <https://www.secret-israel.com/travel/what-makes-israels-education-system-so-unique/>

<sup>78</sup> OECD. (2023). PISA 2022 Results (Volume I and II) — Country Notes: Israel. <https://www.oecd.org/publication/pisa-2022-results/country-notes/israel-056c6cf0/>

<sup>79</sup> Ibid.

## Education During the Israel-Hamas War

On October 7, 2023, the Hamas launched an attack on Israel<sup>80</sup>. The ensuing conflict became the most extensive in Israel since the 1973 Yom Kippur War<sup>81</sup>, resulting in at least 39,000 casualties and the forced displacement of over 100,000 Israelis and 2.3 million Palestinians<sup>82</sup>.

The 2023 war led to the suspension of educational institutions for several weeks. In-person learning could continue only in schools located in relatively safe areas with bomb shelters, capable of housing students and staff during missile threats<sup>83</sup>. If a school lacked a shelter, engineers identified the safest zones within each institution where people could take cover during such threats. In frontline areas, educational activities were permitted with restrictions. Another challenge was the shortage of teachers due to the massive call-up of reserve Israel Defense Forces soldiers: over 2,000 teachers and school staff were mobilized<sup>84</sup>. Students attended school two to three times a week, creating difficulties for working parents<sup>85</sup>.

On October 25, 2023, schools resumed operations in most parts of Israel. In Jerusalem, Tel Aviv, and Haifa, classes resumed in a blended format depending on access to bomb shelters and teacher availability. Schools near the Gaza border remained closed. Limited classes resumed near the Lebanese border, where the threat of radical group invasions was present<sup>86</sup>. The Ministry of Education launched a virtual school to provide educational services to students<sup>87</sup>.

As of the 23rd day of the conflict, over 75 % of schools had returned to in-person learning. In special education institutions, this figure was over 84 %. The territorial distribution of open educational institutions for in-person learning was as follows:

- Jerusalem: 98 %
- Tel Aviv: 77 %
- Haifa: 65 %
- Northern region: 93 %
- Central region: 84 %
- Southern region: 36 %<sup>88</sup>

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<sup>80</sup> Huyski J. (2023). Hamas has launched a war against Israel – and Gaza will pay the price for its audacity. [In Ukrainian]. [https://lb.ua/world/2023/10/07/578474\\_hamas\\_rozpochav\\_viynu\\_proti\\_izraylu-i.html](https://lb.ua/world/2023/10/07/578474_hamas_rozpochav_viynu_proti_izraylu-i.html)

<sup>81</sup> Marin, M. (2023). Residents of Philly region grieve for loved ones in Israel and Gaza as war intensifies. *The Philadelphia Inquirer*. <https://www.inquirer.com/news/philadelphia/israel-hamas-war-family-philadelphia-20231012.html>

<sup>82</sup> [https://en.wikipedia.org/wiki/Israel%E2%80%93Hamas\\_war](https://en.wikipedia.org/wiki/Israel%E2%80%93Hamas_war)

<sup>83</sup> Fiske, G. (2023). Schools in Tel Aviv allowed by the municipality to fully reopen, but not all can. <https://www.timesofisrael.com/schools-in-tel-aviv-permitted-by-municipality-to-fully-reopen-but-not-all-can/>

<sup>84</sup> Fiske, G. (2023). The school system grapples with unprecedented challenges during wartime. <https://www.timesofisrael.com/school-system-grapples-with-unprecedented-challenges-during-wartime/>

<sup>85</sup> Fiske, G. (2023). Schools in Tel Aviv are allowed by the municipality to fully reopen, but not all can. <https://www.timesofisrael.com/schools-in-tel-aviv-permitted-by-municipality-to-fully-reopen-but-not-all-can/>

<sup>86</sup> Fiske, G. (2023). In-person schooling resumes across much of Israel on Wednesday. <https://www.timesofisrael.com/in-person-schooling-to-resume-across-much-of-israel-on-wednesday/>

<sup>87</sup> <https://www.gov.il/he/pages/schools-for-evacuated>

<sup>88</sup> <https://www.gov.il/he/pages/status18>

On October 30, 2023, the schedule for the matriculation exams was changed. Winter exams were postponed to March 2024, and the summer matriculation exams were delayed by three weeks to late May 2024. The duration of the exam sessions was increased by 15 %.

Amid the state of emergency, the Ministry of Education's advisory-psychological service opened an Emotional Support Center, operating 24 / 7 to provide support, guidance, and assistance to thousands of parents, students, and educators. The center is staffed by consultants from the psychological advisory service and crisis support experts<sup>89</sup>.

The Ministry of Education continuously gathers ideas and practices developed during the war to incorporate these into emergency readiness plans<sup>90</sup>. It engaged with school directors, teachers, and other educational professionals to gain insights into managing education systems during the conflict. This process is part of the mechanisms to improve the education system's ability to respond effectively to complex situations.

### **Education for Internally Displaced Students**

Due to the outbreak of hostilities in Israel, about 200,000 people became refugees. This led to an increase in the number of students in schools located far from active combat zones. As a result, these schools operated in shifts, with morning and afternoon classes.

During holidays, schools, as directed by the Ministry of Education, organized free activities for internally displaced students. Activities for evacuated students in grades 1–3 included developmental activities, board games, and physical activities. Activities for grades 4–6 included trips (without overnight stays), developmental activities, and cultural shows. Activities for students in grades 7–12 took place in youth centers managed by local authorities. These centers hosted various cultural events, creative workshops, baking and cooking classes, trips, and other activities for the youth<sup>91</sup>.

Israel consistently implemented policies to create new schools for displaced students. Schools for such students were opened in cities like Eilat, Haifa, Netanya, regions like Tamar and Sdot Negev, in smaller settlements, and even at Tel Aviv University<sup>92</sup>.

**"The education system must provide educational assistance to all students evacuated from their homes in the south and north of the country due to the war. We are not sparing budgets and resources to enable them to study, just like the rest of Israel's children, wherever they may be," stated Israel's Minister of Education Yoav Kisch.**

<sup>89</sup> <https://www.gov.il/he/pages/hard-media10-10-23>

<sup>90</sup> <https://www.gov.il/he/pages/lessons-learned>

<sup>91</sup> <https://www.gov.il/he/departments/news/pesach-vacation>

<sup>92</sup> <https://www.gov.il/he/pages/eilat-school23>; <https://www.gov.il/he/pages/eshkolot>; <https://www.gov.il/he/pages/new-school-netanya>; <https://www.gov.il/he/pages/new-school>; <https://www.gov.il/he/pages/school-dor-nevo>; <https://www.gov.il/he/pages/school-ein-gedi>; <https://www.gov.il/he/pages/daed-sea-school>; <https://www.gov.il/he/pages/kfar-silver>; <https://www.gov.il/he/pages/school8>.



The Minister of Education announced the creation of a directorate to provide information, support, and assistance to families from the south and north who were forced to evacuate due to the dangerous situation<sup>93</sup>. This directorate coordinates aid for families, ensures contacts with other government agencies, and provides children with educational, psychological services, and recreational activities throughout their stay in emergency assistance centers. This work includes personal interviews with students, developing support plans that include therapeutic emotional exercises, communication with parents, respectful treatment of the student and their family, and creating a community support network led by parent committees and volunteers.

Starting from December 31, 2023, the Ministry of Education distributed 18,000 laptops to evacuated students and those living on the front lines<sup>94</sup>.

### **Educational Policy for the Sderot Region**

One of the cities close to the Gaza Strip is Sderot (Figure 3), whose educational institutions were closed for four months after the attack. The Ministry of Education and the Sderot municipality reopened all educational institutions in the city only on March 3, 2024<sup>95</sup>. This occurred after the Home Front Command allowed the reopening of schools in the city, and the Ministry of Education prepared for the return of educational staff, along with preparing the institutions. At the municipality's request, the Ministry of Education opened a special call center for families who decided to stay outside the city to coordinate and facilitate further interaction with local authorities.

After the Israel-Hamas war broke out, schools in the region were closed for five months. In early March 2024, Israel's Minister of Education expressed full support for Sderot in reopening educational institutions despite the shortage of teachers and congratulated the city's residents on their safe and successful return to school. The Mayor of Sderot called on the government and the army to ensure absolute security and restore the sense of safety in the city for its residents who wish to return<sup>96</sup>.

In April 2024, the Israeli government approved a budget of approximately \$467 million to implement the national "Education for Revival" <sup>97</sup> program, aimed at restoring, developing, and restructuring the education system for about 30,000 students in Sderot and other settlements around Gaza.

The "Education for Revival" program aims to expand educational opportunities, including socio-emotional, therapeutic, community, and educational initiatives. Additionally, the focus is on restoring and developing physical infrastructure, increasing the availability of professional teaching staff, including psychologists. The plan also includes increasing the number of classrooms and learning spaces, constructing sports facilities, therapeutic farms, and reconstructing and adapting educational institutions, including a new center

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<sup>93</sup> <https://www.gov.il/he/pages/help-for-families>

<sup>94</sup> <https://www.gov.il/he/pages/computer-north>

<sup>95</sup> <https://www.gov.il/he/departments/news/education-sderot>

<sup>96</sup> <https://www.gov.il/he/pages/education-sderot>

<sup>97</sup> <https://www.gov.il/he/pages/tkuma-education>; <https://www.gov.il/he/pages/edu-tkuma>; <https://www.jns.org/israel-approves-five-year-plan-to-rebuild-gaza-border-region/>

for gifted students. All this will help provide both individual and group psychological support for students facing emotional challenges and educational gaps.

The budget for the “Education for Revival” program is allocated over four years until 2028, with the following breakdown:

- \$268 million for pedagogical, therapeutic, and socio-emotional initiatives.
- \$55 million to hire professional teaching staff, educational consultants, psychologists.
- \$6.9 million for increasing administrative staff in schools in the Tkumah region in southern Israel.
- \$71.7 million for construction and reconstruction of educational institutions, including classrooms, sports facilities, and adaptation of premises for gifted students.
- \$64.8 million for informal education, including extracurricular activities.



Figure 3. The 2023 hostilities in Israel affected the city of Sderot and its surroundings.<sup>98</sup>

<sup>98</sup> Wikipedia (2024), October 2023 Gaza — Israel conflict. [In Ukrainian]  
[https://commons.wikimedia.org/wiki/File:October\\_2023\\_Gaza%E2%88%92Israel\\_conflict.svg](https://commons.wikimedia.org/wiki/File:October_2023_Gaza%E2%88%92Israel_conflict.svg)



## **Gaza Strip**

The war with Israel has effectively destroyed the education system in the Gaza Strip. Schools were closed on November 6, 2023, with the escalation of the Israeli military operation, and the local Minister of Education announced the suspension of the 2023 / 2024 academic year. As a result, over half a million children in the Gaza Strip were left without education access. According to the ministry, as of January 2024, about 300 schools had been damaged or destroyed. The local population (2.3 million) has undergone large-scale displacement due to the war, with over 85 % leaving their homes. The educational process has not even resumed in a remote format, as power and communication outages and large-scale population displacement prevent it<sup>99</sup>.

## **Kosovo**

The conflict in Kosovo began in 1998 between ethnic Albanians, ethnic Serbs, and the Yugoslav government. In 1999, the conflict seemed to be resolved with NATO intervention, but unrest continued. In 2004, anti-Serb protests erupted in many cities in Kosovo, resulting in the deaths of 30 residents. In February 2008, Kosovo declared its independence from Serbia<sup>100</sup>.

During the war, education was used as a tool to create a safe space and provide the younger generation with a sense of stability during the crisis. Several Albanian families and imams opened their homes and mosques to create secret schools to continue children's education. The daily routine dictated by the school schedule kept students engaged throughout the day and provided a sense of stability<sup>101</sup>.

Education served as a tool for social mobility, supporting patriotism and nation-building. Textbooks, secret schools, and other resources were used by the Kosovo authorities to preserve their language and culture. On the other hand, the Serbian government used the education system to oppress and control the Albanian population<sup>102</sup>.

International NGOs and local community organizations saw the development of school education as a tool for reconciliation and raising awareness among different ethnic groups through multicultural teacher training and various cultural awareness initiatives<sup>103</sup>.

In the early post-war years, the Kosovo government ended segregation in local schools, where previously Albanian and Serbian students had been educated separately. UNICEF provided 700 tent schools<sup>104</sup>, 30,000 desks, 60,000 chairs, 2,000 blackboards, textbooks, and other necessary items, as 45 % of schools in Kosovo had been destroyed or damaged.

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<sup>99</sup> Al Jazeera (2024). How Israel has destroyed Gaza's schools and universities.

<https://www.aljazeera.com/news/2024/1/24/how-israel-has-destroyed-gazas-schools-and-universities>

<sup>100</sup> Encyclopedia Britannica (n.d.). Kosovo conflict. <https://www.britannica.com/event/Kosovo-conflict>

<sup>101</sup> Mitra, K. (2023). The Role of Education in Post-Conflict Kosovo: A Proposal for an Analysis of How Experts Understand the Role that Education Has Played in Peacebuilding.

<https://digitalcollections.sit.edu/cgi/viewcontent.cgi?article=4345&context=capstones>

<sup>102</sup> Ibid.

<sup>103</sup> Ibid.

<sup>104</sup> UNICEF. (n.d.) High Performance Tents.

<https://www.unicef.org/innovation/productinnovation/highperformancetents>

Special attention was given to demining educational institutions and revising dual curricula for ethnic Serbs and ethnic Albanians<sup>105</sup>.

## **Bosnia and Herzegovina**

The war in Bosnia and Herzegovina began in the spring of 1992 and lasted until the end of 1995. The fighting started with the Bosnian Serbs confronting the combined forces of Bosnian Muslims and Croats. However, from autumn 1992 to spring 1994, there was also a conflict between Bosnian Croat and Bosnian Muslim forces<sup>106</sup>.

After the war and the formation of the unified state of Bosnia and Herzegovina, the ethnic and cultural segregation of the three nations created problems in organizing the educational process. A temporary solution was implemented under the principle of “Two Schools Under One Roof,” where “Inside the same school building, different spaces and curricula are assigned to students belonging to different entities.”<sup>107</sup> This solution was supported by the international community as a compromise until a unified national education system could be restored<sup>108</sup>.

Segregation of children in educational institutions based on ethnicity and discrimination in schools remained a serious issue. From a human rights perspective, these conditions continued to complicate access to quality education and did not promote the development of an inclusive, multicultural, and tolerant society<sup>109</sup>.

The country actively participates in the IPA (Instrument for Pre-Accession Assistance) program, which aims to support beneficiaries in adopting and implementing political, institutional, legal, administrative, social, and economic reforms necessary to align with European Union (EU) values and gradually comply with EU rules, standards, and policies, thereby promoting stability, security, and prosperity<sup>110</sup>. The IPA program in 2013 supported inclusivity in schools across the country, including those addressing discrimination and/or segregation<sup>111</sup>. Specifically, the program helped improve teacher training on inclusion, intercultural education, student-centered learning,<sup>112</sup> and more.

Researchers note that “over the last decade, some structured integration projects have started. The first was started in Brcko, where Bosnian and Serb students share the same desks and classrooms and where schoolbooks revision process has begun to obtain the same texts for all students. At the same time, Pedagogical Institute of Bosnia and Herzegovina based in Sarajevo is trying to create a climate of respect for all three main

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<sup>105</sup> Bird, C. (1999). Back to school in Kosovo as fires of ethnic hatred still burn.

<https://www.theguardian.com/world/1999/sep/01/balkans1>

<sup>106</sup> IRMCT. (n.d.). War in Bosnia 1992–1995. <https://www.irmct.org/specials/war-bosnia/>

<sup>107</sup> Tolomelli, A. (2015). “Two schools under one roof”. The role of education in the reconciliation process in Bosnia and Herzegovina. *Ricerche Di Pedagogia e Didattica. Journal of Theories and Research in Education*, Vol 10, 89–108. <https://doi.org/10.6092/ISSN.1970-2221/4685>

<sup>108</sup> Ibid.

<sup>109</sup> Ibid.

<sup>110</sup> European Neighborhood Policy and Enlargement Negotiations (DG NEAR). (n.d.). Overview — Instrument for Pre-accession Assistance. [https://neighbourhood-enlargement.ec.europa.eu/enlargement-policy/overview-instrument-pre-accession-assistance\\_en](https://neighbourhood-enlargement.ec.europa.eu/enlargement-policy/overview-instrument-pre-accession-assistance_en)

<sup>111</sup> Ibid.

<sup>112</sup> Project Fiche — IPA National programs / Component I. [https://neighbourhood-enlargement.ec.europa.eu/document/download/d0f04245-7d17-4dda-8dc7-037b959c77ad\\_en?filename=8pf\\_educationbih2012.pdf](https://neighbourhood-enlargement.ec.europa.eu/document/download/d0f04245-7d17-4dda-8dc7-037b959c77ad_en?filename=8pf_educationbih2012.pdf)

cultures present in the country, spreading multicultural poetry and novels.”<sup>113</sup> However, the consequences of the “Two Schools Under One Roof” policy remain problematic. In the central and southern parts of the country, over thirty such schools still exist.<sup>114</sup>

Despite international commitments to ensure access to education for all in times of war and the obligation not to use educational infrastructure in combat, education continues to suffer from war impacts. The biggest challenge during wartime is ensuring the continuity of the learning process in schools. UNESCO emphasizes that “Restoration of access to education is crucial to the psychological development of war-affected children and adolescents, and those affected by natural disasters.”<sup>115</sup>

Nevertheless, the destruction of educational infrastructure, forced migration, poor security conditions, the rise of various political groups (sometimes terrorist in nature) in certain regions, financial and economic instability, and other factors make it impossible to maintain a full educational process in such countries. This leads to worsening emotional state of students and teachers (especially from vulnerable groups), decreased attendance, increased gender inequality in education, segregation, and long-term school closures. Among the above cases, only the pandemic response and the implementation of a blended learning format in Israel allowed for the continuation of the educational process in local schools. Of note are also the governments’ and international donor organizations’ efforts to continue education, adapt educational programs for various student categories, for use in displaced persons or migrant camps abroad, and establish post-conflict education opportunities.

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<sup>113</sup> Bravi, L. (2023). The school in Bosnia and Herzegovina after the wars in the Balkans. Processes of conflict and peace in education. *Educazione Interculturale*, 21(1), 29–36. <https://doi.org/10.6092/issn.2420-8175/17034>

<sup>114</sup> Ibid.

<sup>115</sup> UNESCO Digital Library. (2003). Education in situations of emergency, crisis and reconstruction: UNESCO strategy; working paper. <https://unesdoc.unesco.org/ark:/48223/pf0000132305.locale=en>

## CHAPTER 2. PUBLIC POLICY IN SECONDARY EDUCATION DURING MARTIAL LAW

The large-scale armed aggression by the Russian Federation on February 24, 2024, forced Ukrainian authorities at all levels to urgently adopt policies to address the challenges faced in the field of general secondary education. An overview of these policies is provided below.

### Government Decisions Aimed at Organizing Educational Institutions Operations and Implementing the Educational Process under New Conditions

The first public step by the Ministry of Education and Science of Ukraine after the beginning of the full-scale invasion was the recommendation to suspend the educational process and announce a two-week term break.<sup>116</sup> MoES also prepared clarifications on the operation of educational institutions in a state of war.<sup>117</sup>

The number of forcibly displaced educators and students was enormous and, at the beginning of the full-scale invasion, could not be counted. Therefore, the Verkhovna Rada of Ukraine passed a law<sup>118</sup> guaranteeing students the right to receive education in the safest form possible and allowing education workers to work remotely and receive their salaries from anywhere, both within Ukraine and abroad.

This law also granted the Ministry special regulatory powers to address almost all issues in the education sector not covered by existing laws under wartime conditions.<sup>119</sup>

The Verkhovna Rada exempted students in the final 11th grades from the mandatory state final certification exams in 2022, 2023, and 2024.<sup>120</sup>

The MoES issued several orders<sup>121</sup> that established simplified, “de-bureaucratized” rules for enrolling students in other secondary schools, allowed payment for teachers

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<sup>116</sup> MoES. (2022). *Serhii Shkarlet: All educational institutions are recommended to stop the educational process and announce a vacation for two weeks*. [In Ukrainian] <https://mon.gov.ua/news/sergiy-shkarlet-vsime-zakladam-osviti-rekomendovano-pripiniti-osvitniy-protses-ta-ogolositi-kanikuli-na-dva-tizhni>

<sup>117</sup> Cabinet of Ministers of Ukraine. (2022). *Clarification of the Ministry of Education and Science of Ukraine regarding the work of educational institutions within the legal regime of martial law*. [In Ukrainian] <https://www.kmu.gov.ua/news/rozyasneniya-mon-shchodo-roboti-zakladiv-osviti-u-mezhah-pravovogo-rezhimu-voyennogo-stanu>

<sup>118</sup> Law of Ukraine “On Amendments to Certain Laws of Ukraine Regarding State Guarantees in Conditions of Martial Law, State of Emergency or State of Emergency” No. 2126-IX (2022). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/2126-20>

<sup>119</sup> The MoES was authorized to issue orders under a simplified procedure — without their state registration by the Ministry of Justice of Ukraine (except for orders relating to the rights, freedoms, legal interests and obligations of citizens and legal entities).

<sup>120</sup> Law of Ukraine “On Comprehensive General Secondary Education” No. 463-IX (2020), subsection 14 of Clause 3 of Chapter X. [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/463-20>

<sup>121</sup> Resolution of the CMU “Some issues of remuneration of employees of state bodies, local self-government bodies, enterprises, institutions and organizations financed or subsidized from the budget, in conditions of martial law” No. 221 (2022). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/221-2022-%D0%BF>

working remotely, provided for the possibility of declaring downtime<sup>122</sup> in educational institutions unable to conduct educational activities due to the armed aggression by Russia, regulated the issuance of certificates of general secondary education, and exempted 4th and 9th-grade students from state final attestation.

*Downtime is the suspension of work caused by the lack of organizational or technical conditions necessary for performing the work, force majeure, or other circumstances (Article 34 of the Labor Code of Ukraine). Time spent in downtime through no fault of the employee is paid at no less than two-thirds of the employee's base salary (Article 113 of the Labor Code of Ukraine).*

The ordering, manufacturing, and issuing of duplicates and corrected documents for basic and complete general secondary education for the schools that are not conducting educational activities due to the Russian Federation's armed aggression, were carried out according to the procedure established for educational institutions located in temporarily occupied territories of Ukraine<sup>123</sup>.

Given that the issue of providing students with textbooks remained relevant, the MoES defined the specifics of conducting the competitive selection of school textbooks<sup>124</sup>, stating that in wartime conditions, the competition for preparing and printing textbooks should follow an expedited procedure.

Local authorities were instructed to address the employment of displaced workers in vacant positions upon their application, and to maintain records of learners based on their whereabouts (place of study).

Educational institutions that operated during the full-scale invasion continued (already on the basis of the new normative and legal framework) to accept displaced persons, accommodate them in boarding houses and dormitories, and organize their meals.

Several "wartime" orders from the MoES were adopted under a simplified procedure but were later canceled due to the Ministry of Justice's position on the necessity of adhering to the procedure for state registration of these orders. One of these documents established the procedure for issuing educational documents to students, their parents, legal representatives, or other persons.<sup>125</sup>

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<sup>122</sup> Resolution of the CMU "Some issues of remuneration of employees of state bodies, local self-government bodies, enterprises, institutions and organizations financed or subsidized from the budget, in conditions of martial law" No. 221 (2022). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/221-2022-%D0%BF>

<sup>123</sup> Order of the Ministry of Education and Science of Ukraine "On approval of the Procedure for recording and issuing documents on general secondary education of the state model to persons who obtained general secondary education in educational institutions in the temporarily occupied territory of Ukraine in 2014" No. 570 (2014). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/z0541-14>

<sup>124</sup> Order of the Ministry of Education and Science of Ukraine "On Amendments to the Procedure for Competitive Selection of Textbooks (except for electronic ones) and manuals for students of general secondary education and teaching staff" No. 449 (2022). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/z0535-22>

<sup>125</sup> Order of the Ministry of Education and Science of Ukraine "On some issues of issuing documents on general secondary education in the conditions of martial law in Ukraine" No. 466 (2022). The order was canceled by the order of the Ministry of Education and Science of Ukraine No. 1022 (2022). [In Ukrainian]

Another document approved the procedure for issuing certificates of basic and complete general secondary education to learners who were abroad in 2022 through Ukrainian diplomatic missions<sup>126</sup>. Due to the cancellation of this document, the legal procedure for handing over educational documents to graduates outside Ukraine was absent from December 2022 to July 2023. This issue was finally resolved in late 2023.<sup>127</sup>

MoES devoted considerable attention to providing methodological recommendations<sup>128</sup> on various issues: organizing the educational process, setting the duration of the academic year, conducting assessments and state final certification, promoting students to the next year, training and issuing educational documents, restoring lost educational documents, labor relations, teacher salaries, etc.

On July 1, 2022, a law came into effect<sup>129</sup> that:

- Suspended the norm regarding the maximum number of students per class (class size) in public schools, except for those studying full-time. The partial removal of the class size limit created a situation where one class could have students studying in person (no more than 30) and an unlimited number of students studying remotely.

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<sup>126</sup> Order of the Ministry of Education and Science of Ukraine and the Ministry of Foreign Affairs "On the approval of the Procedure for interdepartmental cooperation on the issue of issuing documents on basic secondary education and general secondary education issued under martial law in Ukraine to students who are outside Ukraine" No. 538/192 (2022). The order was canceled by the order of the MoES and MFA No. 997/3964 (2022). [In Ukrainian]

<sup>127</sup> Order of the Ministry of Education and Science of Ukraine and the Ministry of Foreign Affairs of Ukraine "On the approval of the Procedure for interdepartmental cooperation on the issue of issuing documents on basic secondary, general secondary and professional (vocational and technical) education, issued under martial law in Ukraine, to those seeking education who are outside Ukraine" No. 419/ 165 (2023). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/z0986-23>

<sup>128</sup> Orders of the Ministry of Education and Science of Ukraine:

- "On the approval of methodological recommendations regarding the assessment of educational achievements of students of grades 5-6 who are receiving education in accordance with the new State standard of basic secondary education" No. 289 (2022). [In Ukrainian] <https://cutt.ly/Yel482Yi>
- "On the approval of methodological recommendations regarding certain issues of the completion of the 2021/2022 academic year" No. 290 (2022). [In Ukrainian] <https://zakon.rada.gov.ua/rada/show/v0290729-22>
- "On the approval of methodological recommendations regarding certain issues of obtaining an education in institutions of general secondary education in the conditions of martial law in Ukraine" No. 563 (2023). [In Ukrainian] <https://zakon.rada.gov.ua/rada/show/v0563729-23>
- Letters of the Ministry of Education and Science of Ukraine:
- "Regarding the writing of applications for leave without salary in connection with the introduction of the legal regime of martial law in Ukraine" No. 1/3292-22 (2022). [In Ukrainian] [https://osvita.ua/legislation/Ser\\_osv/85846/](https://osvita.ua/legislation/Ser_osv/85846/)
- "On the remuneration of employees of educational institutions during the suspension of education" No. 1-3370-22 (2022). [In Ukrainian] <https://cutt.ly/pel49aSt>
- "On transferring the certification of teaching staff in 2022" No. 1/3454-22 (2022). [In Ukrainian] <https://cutt.ly/gel49AnD>
- "On the organization of the educational process in primary school in wartime conditions" No. 1/3725-22 (2022). [In Ukrainian] <https://cutt.ly/Hel49X1J>
- "On providing psychological support for participants in the educational process in the conditions of martial law in Ukraine" No. 1/3737-22 (2022). [In Ukrainian] <https://cutt.ly/Gel43sEj>
- "Regarding admission to the first class of a general secondary education institution" No. 1/4202-22 (2022). [In Ukrainian] <https://cutt.ly/0el47xKI>
- "On instructional and methodological recommendations regarding the organization of the educational process and the teaching of educational subjects in general secondary education institutions in the 2022 / 2023 academic year" No. 1/9530-22 (2022). [In Ukrainian] <https://cutt.ly/Rel4430N>
- "On instructional and methodological recommendations for teaching subjects/integrated courses in general secondary education institutions in the 2023/2024 academic year" No. 1/13749-23 (2023). [In Ukrainian] <https://cutt.ly/5el7DX4n>

<sup>129</sup> Law of Ukraine "On Amendments to Section X "Final and Transitional Provisions" of the Law of Ukraine "On Comprehensive General Secondary Education" Regarding the Regulation of Certain Issues of Educational Activity in Martial Law" No. 2315-IX (2022). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/2315-20>



- Granted founders of public schools the right to prolong the fixed-term employment contracts with the heads of respective educational institutions without conducting a competition, but for not more than six months from the end or cancellation of martial law in Ukraine<sup>130</sup>.

In 2023, the Verkhovna Rada of Ukraine passed five laws that established, among other things, the following norms:

- Teacher professional development, amounting to no less than 15 hours every five years, should focus on improving knowledge, skills, and practical abilities in providing psychological support to participants in the educational process<sup>131</sup>.
- The right to use, in addition to the state language, only the official languages of the European Union in the educational process<sup>132</sup>, which means complete cessation of teaching in Russian.
- State final certification (SFC) in the state language and mathematics is mandatory for graduates of grades 4, 9, and 11, and for graduates of grades 9 and 11 also in Ukrainian history and a foreign language. The list of foreign languages and possible other subjects for SFC is determined by MoES. State educational standards must ensure proficiency in the Ukrainian language, mathematics, knowledge of Ukrainian history, and foreign language skills (excluding Russian)<sup>133</sup>.
- Persons who resided in temporarily occupied territories of Ukraine are granted the right to the recognition in Ukraine of their study results obtained in such territories<sup>134</sup>.

According to the government decision<sup>135</sup>, in 2023–2024, several ministries, together with the National Police, the State Emergency Service, and local government bodies, are implementing an experimental project called “Safety Specialist in Educational Environment,” aimed at increasing safety in the educational environment, prevention, early detection,

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<sup>130</sup> For example, the Kyiv city authorities made a corresponding decision, allowing, however, to extend the term of the contract with school principals not for six, but for 12 months from the date of termination or cancellation of martial law in Ukraine. See Decision of the Kyiv City Council “Some issues of appointment of managers and teaching staff of educational institutions under martial law” No. 5017/5058 (2022). [In Ukrainian] <https://kmr.gov.ua/sites/default/files/5017-5058.pdf>

<sup>131</sup> The Law of Ukraine “On Amendments to Article 51 of the Law of Ukraine “On Comprehensive General Secondary Education” on Improving the Qualifications of Pedagogical Workers in the Matter of Providing Psychological Support to Participants in the Educational Process” No. 3051-IX (2023). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/3051-20>

<sup>132</sup> Law of Ukraine “On Amendments to Certain Laws of Ukraine Regarding Taking into Account the Expert Assessment of the Council of Europe and Its Bodies Regarding the Rights of National Minorities (Communities) in Certain Areas” No. 3504-IX (2023). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/3504-20>

<sup>133</sup> Law of Ukraine “On Amendments to the Law of Ukraine “On Comprehensive General Secondary Education” Regarding State Final Attestation and State Standards” No. 3439-IX (2023). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/3439-20>

<sup>134</sup> Law of Ukraine “On Amendments to Certain Laws of Ukraine Regarding Recognition of Education Results of Persons Who Lived in the Temporarily Occupied Territory of Ukraine” No. 3482-IX (2023). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/3482-20>

<sup>135</sup> Resolution of the CMU “On the implementation of the experimental project “Security specialist in the educational environment” No. 867 (2023). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/867-2023-%D0%BF>

cessation, and elimination of negative phenomena and their harmful consequences regarding student safety. This involves introducing and organizing the activities of a safety specialist in educational institutions of general secondary and vocational (technical) education<sup>136</sup>.

The MIA and MoES approved procedures regulating important issues of interaction between education workers, police, and emergency services to create a safe educational environment in educational institutions.

One of the MoES orders amended the Regulation on Distance Learning for Complete General Secondary Education<sup>137</sup>. The changes included regulating the work of teaching staff under distance learning conditions, which could be carried out outside the educational institution's premises, at any location chosen by the employee.

## **Legislative Changes in the Organization of Education for Students with Special Educational Needs**

In 2022, the Cabinet of Ministers of Ukraine made several important decisions<sup>138</sup> regarding the organization of the educational process during martial law in Ukraine for persons with special educational needs, including:

- The maximum number of children with special educational needs in inclusive classes or groups is not applied, and schools cannot refuse to organize inclusive education or create inclusive groups.
- Psychological-pedagogical and corrective-developmental services or assistance may be provided by specialists from inclusive-resource centers and school teaching staff (provided that the safety of participants in the educational process is ensured).
- A blended form of education is allowed in inclusive classes.
- Schools may accept copies, rather than originals, of identity documents and comprehensive psychological-pedagogical assessment reports of students.
- Meetings of psychological-pedagogical support teams in schools may be held online or in a mixed in-person and remote format.

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<sup>136</sup> Order of the MIA and the MoES "On approval of the Procedure for early warning and evacuation of participants in the educational process in the event of an attack or risk of an attack on an educational institution" No. 685/1013 (2023). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/z1583-23>; order of the MIA and MoES "On the approval of the Procedure for the interaction of educational institutions, territorial bodies and units of the State Emergency Service of Ukraine, the National Police of Ukraine on the functioning of security classes" No. 1436/940 (2023). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/z2117-23>

<sup>137</sup> Order of the Ministry of Education and Science of Ukraine "On Approval of Amendments to the Regulation on the Remote Form of Complete General Secondary Education" No. 201 (2023). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/z0455-23>

<sup>138</sup> Resolution of the CMU "On Amendments to the Procedures Approved by Resolutions of the Cabinet of Ministers of Ukraine dated April 10, 2019 No. 530 and dated September 15, 2021 No. 957" No. 483 (2022). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/483-2022-%D0%BF>; Resolution of the CMU "On Amendments to Resolutions of the Cabinet of Ministers of Ukraine on Activities of Special General Secondary Education Institutions" No. 979 (2022). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/979-2022-%D0%BF>



- Schools may form temporary inclusive interclass groups.
- Special schools and educational-rehabilitation centers, regardless of their direction (profile) of activity, may enroll children with special educational needs regardless of their category (type) of special educational needs (difficulties) and children without special educational needs and may additionally create classes for them, including blended and inclusive classes.

*“A person with special educational needs is an individual who requires additional permanent or temporary support in the educational process to ensure their right to education” (Law of Ukraine “On Education” No. 2145-VIII (2017), paragraph 20 of part one of Article 1).*

*Theoretically, special educational needs can apply to a broad range of learners: highly talented children, those studying from abroad, and so forth. In practice, this term in Ukraine is primarily used concerning learners with disabilities.*

## Implementation of the “New Ukrainian School” Reform During the War

Since 2017, the reform of general secondary education known as the “New Ukrainian School” (NUS) has been implemented in Ukraine. The reform is carried out in three main areas: updating the content of education, professional development of teachers in line with the reform’s goals and new state educational standards, and modernization of the educational environment. These areas have been negatively impacted by the full-scale war, which has brought new challenges that require urgent measures.

### Updating the Educational Content

The NUS reform aims to shift from a traditional knowledge-based approach to a competency-based one, which includes updated academic knowledge, the ability to apply it to solve practical tasks, and the formation of values-based attitudes. The reform also focuses on developing social-emotional and other “soft” skills.

Framework documents such as the State Standard for Primary Education (2018)<sup>139</sup> and the State Standard for Basic Education (2020)<sup>140</sup> define expected competency-based and

<sup>139</sup> Resolutions of the CMU “On Approval of the State Standard of Primary Education” No. 87 (2018). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/87-2018-%D0%BF>

<sup>140</sup> Resolution of the CMU “On some issues of state standards of comprehensive general secondary education” No. 898 (2020) [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/898-2020-%D0%BF>

practical learning outcomes and propose the primary content for the further curricula and textbooks development. They allow for content variability and the integration of subjects.

In the first phase of the NUS reform in primary schools (2017–2020), positive results were achieved. Students in pilot schools who were educated according to the new State Standard demonstrated better development of “soft” skills, outperforming students from other schools by more than 10 % in areas such as collaboration, decision-making, problem-solving, the ability to defend their point of view, initiative, and creativity<sup>141</sup>.

Among other outcomes, the reform has been positively received by educational stakeholders, and students’ academic achievements in primary school have improved. To track the reform’s progress, a nationwide cyclical monitoring study of educational quality was planned. The first cycle took place in 2018, with subsequent cycles planned for 2020 and 2022. However, the 2020 cycle was interrupted by the pandemic, and the second cycle took place in 2021, following a year of remote learning, which showed a decline in reading and math competencies among primary school graduates<sup>142</sup>.

Due to the destructive impact of the full-scale war and the transition of many students to remote and blended learning, it is challenging to determine the impact of new learning approaches on students’ educational achievements. The main stage of the third cycle of the nationwide external monitoring of primary education quality was conducted in spring 2024 in regions where the security situation allowed for testing. The results of this monitoring will help track changes in students’ performance in reading and mathematics, particularly in relation to the effects of the full-scale invasion, compared to data from the previous two cycles (2018 and 2021).

### **Improving Teacher Qualifications in Line with the Reform Goals**

The new approaches to the professional teacher development have been outlined in the key legal and regulatory documents on the NUS reform. These include the Law of Ukraine “On Education” (2017), the Law of Ukraine “On Complete General Secondary Education” (2020), and the resolution of the Cabinet of Ministers of Ukraine “Some Issues of Professional Development for Pedagogical and Scientific-Pedagogical Workers” (2019).

The main changes in the system of continuous professional development include: doubling the minimum duration of professional development (at least 150 hours over five years); introducing targeted subsidies for teacher professional development; expanding the range of professional development services through the involvement of other qualification providers; introducing pedagogical internships; building a network of centers for the professional development of pedagogical staff; introducing supervision; conducting independent teacher certification; and developing a new professional standard for teachers.

At the same time, certain aspects still require refinement. For example, the “money follows the teacher” principle is enshrined in legislation but has not been implemented.

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<sup>141</sup> Linnik, O., Hrynevych, L., & Staragina, I. (2022). Diagnosing Soft Skills in Primary School Students within the Context of the New Ukrainian School Reform. *Revista Romaneasca Pentru Educatie Multidimensionala*, 14 (4 Sup.1), 18–35. [In Ukrainian] <https://doi.org/10.18662/rrem/14.4Sup1/657>

<sup>142</sup> Hrynevych, L., Linnik, O., & Herczyński, J. (2023). The New Ukrainian School reform: Achievements, developments and challenges. *European Journal of Education*, 58(4), 542–560. [In Ukrainian] <https://onlinelibrary.wiley.com/doi/10.1111/ejed.12583>

The quality criteria for professional development courses for providers need clarification and monitoring by the Ministry of Education and Science of Ukraine. The implementation of pedagogical internships has been delayed due to a lack of funding.

The professional preparation of primary school teachers for the NUS was carried out through centralized professional development in a blended format, which included online courses and in-person training with trainers based at regional institutes of postgraduate pedagogical education. In 2018–2019, the Ministry of Education and Science created teams of NUS trainers for primary school teachers<sup>143</sup>. These trainers formed communities of educators who continued to develop and upskill, becoming the main driving force behind the reform implementation in primary schools.

The NUS reform implementation in secondary schools began in 2022, coinciding with the full-scale Russian invasion. Funding for the reform was reduced due to the full-scale war, complicating its support and implementation. The targeted NUS subsidy was not funded, and centralized professional development for secondary school teachers was not conducted.

Research results on the state of NUS implementation in 5th and 6th grades show<sup>144</sup> that 40 % of surveyed teachers lack sufficient knowledge of the core aspects of the reform and do not understand how it differs from previous educational approaches, even though 96 % of respondents had taken various professional development courses. Subject teachers need to undergo targeted training on working with the new State Standard for Basic Secondary Education, competency-based teaching methods, student motivation, creating a supportive and safe learning environment, and improving digital skills.

Under the influence of the war, in addition to traditional professional development topics, new areas such as first aid, mine safety, and psychological support in crisis situations have gained importance. Nearly 70 % of teachers express a desire to improve their qualifications in providing psychological support for themselves and / or their students, and they emphasize the need for a clear action plan for teachers in difficult situations.

### **Modernizing the Educational Environment**

Since 2018, the government has introduced a subsidy from the state budget to local budgets to ensure quality, modern, and accessible general secondary education under the New Ukrainian School (NUS). This subsidy includes funding for areas such as teacher professional development and improving the resource provision of schools.

Due to the lack of targeted subsidies and centralized teacher professional development for secondary schools in 2022, the reform, while formally ongoing, effectively became a mere imitation of true implementation. Additionally, many textbooks did not fully reflect the requirements of the new State Standard for Basic Education, as they continued to use outdated approaches.

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<sup>143</sup> Institute of Educational Analytics (2019). Educational reform: results and prospects. Informational and analytical collection. Kyiv, 228 p. [In Ukrainian] <https://iea.gov.ua/diyalnist/naukovo-analitichna-diyalnist/materiali-komunikatsijnih-zahodiv/2019-2/>

<sup>144</sup> Pasko, I., Bozhynskyi, V., & Bondarenko, P. (2024). "New Ukrainian school" in grades 5–6: challenges of implementation. NGO "Smart Education" Kyiv. 190 p. [In Ukrainian] <https://tinyurl.com/5xhfusxx>

However, since 2023, despite the full-scale war, the Ministry of Education and Science of Ukraine resumed support for the reform, including through targeted funding. In 2024, the MoES, the Ministry of Finance of Ukraine, and the World Bank signed agreements under the LEARN program “Increasing Access and Resilience in Education in Crisis Conditions in Ukraine”, which includes support for the implementation of the reform in both secondary and upper-profile schools.

A separate challenge for the reform has been preparing a network of academic and vocational lyceums to implement a three-year upper secondary school. Due to migration processes, a demographic crisis, and security concerns, many communities find it difficult to predict the number of students and plan the development of their school networks.

In 2025, the pilot phase of the upper secondary school reform will begin across Ukraine, which will include testing new learning approaches, developing elective courses, and testing educational materials. In 2024, the concept for three-year academic lyceums<sup>145</sup> was introduced, developed in collaboration with the OECD Directorate of Education and Skills.

## **Funding for General Secondary Education During the Full-Scale Invasion**

The vast majority of secondary schools in Ukraine are municipal and funded by local budgets. Since local budgets do not have sufficient revenue to fully fund school education, they receive additional funds in the form of several subsidies<sup>146</sup> from the state budget of Ukraine. The largest of these is the so-called educational subsidy, which is allocated for teacher salaries. Other subsidies aim to provide state support for individuals with special educational needs, support the implementation of the New Ukrainian School reform, ensure fire safety in general secondary education institutions, and more.

Due to the onset of the full-scale invasion, the Ukrainian government was forced to reduce state budget expenditures and redirect them to defense needs. As a result, in 2022, the educational subsidy and some other subsidies were cut by 10 % (see Figure 4), and the New Ukrainian School subsidy, the subsidy for implementing the “Sustainable School for Better Results” program, and the subsidy for ensuring fire safety were canceled<sup>147</sup>.

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<sup>145</sup> MoES (2024). 25 future lyceums and the conceptual foundations of the reform: a national forum on specialized secondary education was held. [In Ukrainian] <https://tinyurl.com/3h55xtwk>

<sup>146</sup> A subsidy is a grant (non-refundable provision of funds) to local budgets from the state budget, intended for use for a specific purpose. Source: Yunin, O. S., Kruglova, O. O., Savelieva M. O., Yunina, M. P., & Myronyuk, S. A. (2018). *Financial and economic dictionary*. Publisher K. O. Bila. P. 58, 143–144.

<sup>147</sup> Resolutions of the CMU “On the allocation of funds to the reserve fund of the state budget” No. 245 and No. 401 (2022). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/245-2022-%D0%BF>; <https://zakon.rada.gov.ua/laws/show/401-2022-%D0%BF>

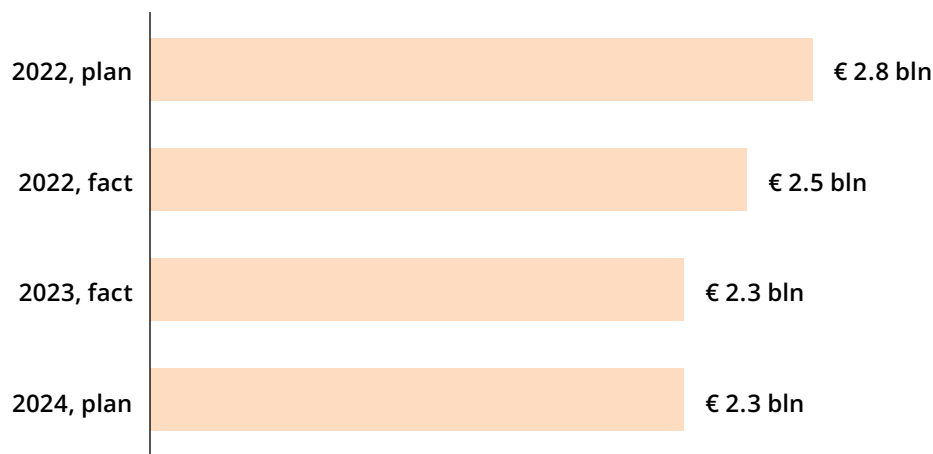


Figure 4. The Educational Subsidy in 2022–2024<sup>148</sup>

Since 2016, the educational subsidy has not been allocated to general secondary education institutions (except for primary schools and private general secondary education institutions) with fewer than 25 students. In 2024, it was decided to strengthen this policy: from September 1, 2025, the educational subsidy will not be allocated to schools with fewer than 45 students, and from September 1, 2026, to those with fewer than 60 students<sup>149</sup>.

In addition to the educational subsidy, in 2023 the state budget financed subsidies for:

- Providing state support to individuals with special educational needs (€7.9 million);
- Creating safe learning environment (€39 million);
- Purchasing school buses (€26 million);
- Providing education for individuals in healthcare institutions (€6.1 million).

In 2024, the state budget covers expenditures across all major areas of state support for the secondary education system, but to the extent possible, given the ongoing war and macro-financial assistance from Ukraine's international partners. Specifically, the funds from the subsidy for creating safe learning environment are used for building civil protection facilities, primarily radiation shelters, and shelters or bunkers for schools where education is conducted remotely and / or in a blended format<sup>150</sup>.

Regarding funding for secondary education during martial law, MoES has opened a special account at the National Bank of Ukraine for receiving funds in national and

<sup>148</sup> Concluded according to the laws on the state budget of Ukraine for 2022, 2023, 2024, taking into account the decisions of the Central Committee of Ukraine regarding the redistribution of expenditures of the state budget of Ukraine in 2022. Hryvnias were converted into euros at the standard official exchange rate of the National Bank of Ukraine for the corresponding year.

<sup>149</sup> Resolution of the CMU "On Amendments to Resolutions of the Cabinet of Ministers of Ukraine dated January 14, 2015 No. 6 and December 27, 2017 No. 1088" No. 245 (2024). [In Ukrainian]  
<https://zakon.rada.gov.ua/laws/show/245-2024-%D0%BF>

<sup>150</sup> Resolution of the CMU "Some issues of providing subventions from the state budget to local budgets for the provision of safe conditions in institutions providing general secondary education" No. 419 (2023). [In Ukrainian]  
<https://zakon.rada.gov.ua/laws/show/419-2023-%D0%BF>

foreign currencies, charitable donations, humanitarian aid, grants, and gifts. Funds from this account are directed to the following educational system needs<sup>151</sup>:

- Restoring the operation of state and municipal educational institutions damaged or destroyed due to hostilities; purchasing teaching materials and equipment;
- Purchasing textbooks, manuals, and educational materials;
- Acquiring computer equipment and software;
- Purchasing school buses for secondary schools;
- other needs to ensure a safe educational environment.

## International Relations in the Education Sector During the War

Ukraine's international cooperation in education is twofold: ending partnerships with the aggressor country and its allies, and intensifying cooperation with international organizations (such as UNESCO, UNICEF, etc.) that provide or administer financial and technical assistance to the general secondary education system.

The government has denounced international agreements in the field of education and science with the Russian Federation<sup>152</sup>, the Republic of Belarus<sup>153</sup>, and agreements on educational cooperation with former Soviet Union countries<sup>154</sup>.

As a result of the denunciation of international treaties<sup>155</sup>, the guarantees of the right to education and the recognition of the equivalency of secondary education documents for foreign nationals permanently residing in Ukraine have been canceled, placing them on an equal footing with Ukrainian citizens.

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<sup>151</sup> Resolution of the CMU "Some issues of using funds from the account to meet the needs of education and science" No. 1256 (2022). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/1256-2022-%D0%BF>

<sup>152</sup> Resolution of the CMU "On Termination of International Agreements in the Field of Education and Science with the Russian Federation" No. 355 (2022). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/355-2022-%D0%BF>

<sup>153</sup> Resolution of the CMU "On Termination of International Agreements in the Field of Education and Science with the Republic of Belarus" No. 417 (2022). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/417-2022-%D0%BF>

<sup>154</sup> Resolution of the CMU "On Withdrawal from the Agreement on Cooperation in the Field of Education" No. 1033 (2022). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/1033-2022-%D0%BF>

<sup>155</sup> The following treaties were denounced:

- Agreement between the Government of Ukraine and the Government of the Russian Federation on cooperation in the field of culture, science and education, concluded on July 26, 1995 in Moscow.
- Agreement between the Cabinet of Ministers of Ukraine and the Government of the Russian Federation on mutual recognition and equivalence of documents on education and academic titles, concluded on May 26, 2000 in Moscow, and Protocol between the Cabinet of Ministers of Ukraine and the Government of the Russian Federation on amendments to the Agreement between the Cabinet of Ministers of Ukraine and the Government of the Russian Federation on mutual recognition and equivalence of documents on education and academic titles dated May 26, 2000, executed on January 28, 2003 in Kyiv.
- Agreement between the Cabinet of Ministers of Ukraine and the Government of the Republic of Belarus on mutual recognition and equivalence of documents on education and academic titles, concluded on February 6, 1998 in Minsk.
- Agreement on cooperation in the field of education, concluded on May 15, 1992 in Tashkent.

Cooperation has been ceased in the following areas:

- Exchange programs for students and teachers for training, professional development, teaching work, and participation in scientific and scientific-methodological seminars, conferences, symposiums, etc.;
- Establishing and operating educational institutions in Ukraine where Russian is the language of instruction, training staff, developing material and technical bases, developing and publishing textbooks and other educational-methodological literature for these institutions;
- Study of the language, history, literature, and culture, exchange of teachers, specialists in Russian language and literature, and educational-methodological guides and materials;
- Meeting the general educational needs of the Russian national minority by creating conditions for education in the Russian language.

At the same time, an example of effective cooperation between Ukraine and international organizations to support general secondary education is a project providing financial aid to central secondary education institutions in the 2022 / 2023 academic year<sup>156</sup>. Under this project, specific hub schools were granted a one-time cash aid of \$2,000 from UNICEF<sup>157</sup>. The funds were used for purchasing and maintaining equipment for school cafeterias, repairing plumbing, ventilation, electrical networks, and flooring.

Foreign partners are assisting Ukrainian schools in restoring school buildings and constructing modular facilities. For example, the U-LEAD initiative “Restoring Local Schools for Resilience”, implemented in partnership with charitable foundations *savED*, “Brave to Rebuild”, and the NGO “Centre for Innovative Education ‘Pro.Svit’”, is installing 209 new windows, 296 internal and external doors, repairing three roofs and 112 rooms (classrooms, corridors, gyms, etc.), equipping comfortable toilets with hot water in 12 schools<sup>158</sup>.

Additionally, thanks to foreign donors, some schools have received modular buildings. Specifically, in the village of Zagalki in Kyiv Oblast, a modular kindergarten and modular educational space were constructed. The Hungarian Ecumenical Aid Service<sup>159</sup> provided

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<sup>156</sup> Resolution of the CMU “On the implementation of a joint project with the International Children’s Emergency Fund under the United Nations (UNICEF) to provide financial assistance to supporting institutions of general secondary education in the 2022/23 academic year” No. 1386 (2022). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/1386-2022-%D0%BF>

<sup>157</sup> “A hub institution of education is an institution of general secondary education that has branches and / or transports students and teaching staff (if necessary) to this institution and back, as well as equipped with qualified teaching staff, has modern material and technical and educational-methodical base, a safe learning environment and able [...] to ensure the acquisition of primary, basic and/or specialized secondary education at the appropriate level at the level of state standards” (*part six of Article 31 of the Law of Ukraine “On Comprehensive General Secondary Education”*). “The number of people seeking education at a hub educational institution (not taking into account their number in branches) should be at least 200 people” (*paragraph 3 of the Regulation on a hub educational institution, approved by the Resolution of the CMU dated 19.06.2019 No. 532*). The hub school is actually a center for providing high-quality secondary education with strong material and technical support for rural residents.

<sup>158</sup> U-LEAD with Europe. (2023). 12 schools will be restored in three regions of Ukraine with the support of U-LEAD. [In Ukrainian] <https://u-lead.org.ua/news/204>

<sup>159</sup> New Ukrainian school. (2023). Ukrainian experience of modular buildings for education — research of the Education Ombudsman Service. [In Ukrainian] <https://cutt.ly/Wexfa07Y>



the kindergarten, and the “Dream and Act” program, IREX project, and Portuguese company jp.ik constructed the educational space<sup>160</sup>.

Partners are helping Ukrainian schools create safe learning environment. The Lithuanian government has allocated €5 million for building shelters in frontline regions<sup>161</sup>. In 2024, Lithuania plans to allocate €400,000 for installing metal detectors in Ukrainian schools<sup>162</sup>. Ukrainian schools can also receive assistance in setting up modern shelters from the KSE Foundation<sup>163</sup>.

With financial support from foreign donors, schools are receiving technical devices. For example, thanks to the European Union and the Republic of Korea, UNICEF has delivered 5,000 tablets for primary school students and another 5,000 laptops for secondary and high school students<sup>164</sup>.

Two Osvitioriia projects, financed by the TED Foundation, aim to restore learning in schools affected by Russian aggression<sup>165</sup>. In 2023, within two months of the project’s operation, 60 schools from 17 regions received aid totaling over 3.5 million UAH. “Among the provided aid: 86 laptops for teachers, 170 tablets for students, 20 routers and uninterruptible power supplies, as well as multimedia equipment, generators, and more”<sup>166</sup>.

The public organization “EdCamp Ukraine” with the support of the international humanitarian organization Save the Children and the Education Cannot Wait International Foundation implemented the project “Change in 7 months”, within the framework of which the Bobrytsk gymnasium of the Velikodymer settlement council and the Ternopil school No. 28 received assistance in the amount of 700 thousand UAH for the repair of premises, as well as support in improving the qualifications of all teaching staff and forming unique development strategies for each of these institutions.

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<sup>160</sup> *Suspilne*. (2023). The first modular educational space in Ukraine was opened in Kyiv region. [In Ukrainian] <https://cutt.ly/DexfaCMv>

<sup>161</sup> MoES (2024). Support for Ukrainian education from UNITED24: we are raising funds to rebuild schools and create shelters. [In Ukrainian] <https://cutt.ly/lexfalwr>

<sup>162</sup> Svyrydyuk, Yu. (2024). Lithuania will allocate 400,000 euros to install metal detectors in Ukrainian schools. *Social: news*. [In Ukrainian] <https://cutt.ly/Bexfd9u3>

<sup>163</sup> Volyk, V. (2022). Ukrainian schools will receive assistance in setting up shelters. *Social: news*. [In Ukrainian] <https://suspilne.media/308186-ukrainski-skoli-otrimaut-dopomogu-v-oblastuvanni-ukrittiv/>

<sup>164</sup> UNICEF. (2023). UNICEF delivered 10,000 tablets and laptops for Ukrainian schoolchildren thanks to funding from the EU and the Republic of Korea. [In Ukrainian] <https://cutt.ly/9exfgldt>

<sup>165</sup> Osvitioria. (2023). Education cannot wait: how destroyed schools of Kyiv region are being rebuilt. [In Ukrainian] <https://cutt.ly/uexfjdvd4>

<sup>166</sup> Media detector: Media sapiens. (2023). 60 schools from 17 regions received assistance within the framework of the Reeducation project. [In Ukrainian] <https://cutt.ly/eexfjcGB>





Apostoliv Lyceum No. 1 (Dnipropetrovsk Region) before and after the destruction





Mykhailo-Kotsyubinsky Lyceum (Chernihiv Region)

# CHAPTER 3: THE CONSEQUENCES OF WAR FOR EDUCATION

## Scale of Damage to Ukrainian Schools

According to the State Statistics Service of Ukraine, at the beginning of the 2023/2024 academic year, there were 12,701 schools in Ukraine<sup>167</sup>. This number also includes institutions that fell under Russian occupation (as of May 21, 2023 — 894 schools<sup>168</sup>), destroyed institutions, and those undergoing major repairs (190 institutions)<sup>169</sup> or whose operations have been suspended (405 institutions). Overall, the number of schools has significantly decreased compared to the data from September 1, 2021 (13,991 schools)<sup>170</sup>. Schools account for nearly half of the damaged and more than half of the destroyed educational institutions in Ukraine since February 2022 (1,621 and 192 institutions, respectively<sup>171</sup>), representing just over 14 % of the total number of schools. This means that since the beginning of the full-scale Russian invasion, every seventh school in the country has been affected (see Annex 2 and Figure 5).

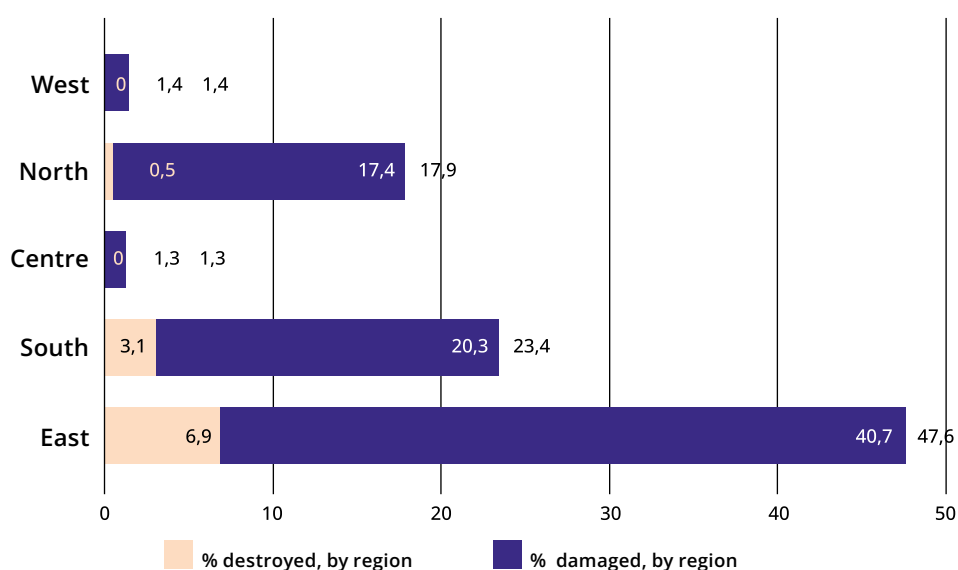


Figure 5. Proportion of Destroyed and Damaged Schools in Ukrainian Regions as of June 26, 2024<sup>172</sup>

<sup>167</sup> State Statistics Service (2024). General secondary education in Ukraine in 2023. Table 6. [In Ukrainian] <https://tinyurl.com/4384e54x>

<sup>168</sup> Institute of Educational Analytics. (2023). Education under martial law: challenges, development, post-war prospects. Informational and analytical collection. P. 21. [In Ukrainian] <https://cutt.ly/KezF3wz7>

<sup>169</sup> State Statistics Service (2024). Title work. Table 17.

<sup>170</sup> State Statistics Service (2022). General secondary education in Ukraine in 2021. Table 7. [In Ukrainian] <https://tinyurl.com/mvs2wz8a>

<sup>171</sup> Education is under threat. (n.d.). [In Ukrainian] <https://saveschools.in.ua/>

<sup>172</sup> Compiled from the data indicated in the note to Annex 2. The shares are calculated as a percentage of the total number of schools in 2023, not 2021, so the data in the figure does not match the data given in the last column of the table in Annex 2.



The most significant damage has been inflicted on schools in the Eastern (126 institutions destroyed and 739 damaged), Southern (54 institutions destroyed and 356 damaged), and Northern regions (12 destroyed and 434 damaged). The regions with the highest percentage of affected schools are:

- Kharkiv Oblast—49.4 % of schools have sustained damage;
- Donetsk Oblast—46.8 %;
- Luhansk Oblast—42.9 %;
- Kherson Oblast—41.7 %;
- Mykolaiv Oblast—31.3 %<sup>173</sup>.



Zagaltsiv Lyceum of the Borodyan Settlement Council (Kyiv Region)

## Human Capital Losses in Ukrainian Secondary Education

As of the beginning of the 2023 / 2024 academic year, Ukrainian schools had 3.9 million students and 390,000 teachers<sup>174</sup>. These figures have significantly decreased compared to the 2021 / 2022 academic year when there were 4.2 million students and 435,000 teachers<sup>175</sup>. Overall, the number of students and teachers has decreased across all regions of Ukraine. The most noticeable reductions have occurred in the East, which lost 20 % of students and 22 % of teachers, and in the South, where the number of students decreased

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<sup>173</sup> See Annex 2.

<sup>174</sup> See annexes 3 and 4.

<sup>175</sup> Ibid.

by 15.9 % and teachers by 18.8 %<sup>176</sup>. The decrease is due to forced relocation abroad and occupation of Ukraine territories.

According to UNICEF, in March 2022, the war threatened the well-being and lives of over 7.5 million Ukrainian children<sup>177</sup>. At that time, 1.5 million children had already left Ukraine's borders, and another 75,000 children were becoming refugees daily<sup>178</sup>. According to the Office of the Education Ombudsman, by the end of 2023, 1 million Ukrainian students were abroad<sup>179</sup>. This number is likely higher, as only EU schools have integrated 831,431 Ukrainian students since the beginning of the full-scale invasion<sup>180</sup>. Additionally, students studying remotely from abroad in Ukrainian schools and not attending schools in the host country must be considered. According to the MoES, in the fall of 2023, 378,600 such students were enrolled in remote, family, or external forms of education<sup>181</sup>. Nearly 20,000 Ukrainian students have been deported or abducted by Russia and are forcibly located in the aggressor state<sup>182</sup>. In total, 25 % of the average number of people who studied in Ukrainian schools in the last three pre-war years are now outside Ukraine<sup>183</sup>. The largest numbers of students left Ukraine from Kyiv (67,318), Kharkiv Oblast (62,801), and Dnipropetrovsk Oblast (47,921)<sup>184</sup>.

In the initial months of the full-scale invasion, almost 26,000 teachers left Ukraine<sup>185</sup>. Some of them later returned. According to various sources, the number of teachers remaining abroad was:

- As of September 2022—13,000 teachers<sup>186</sup>;
- As of May 2023—11,900 teachers<sup>187</sup>;
- As of September 2023 — almost 7,500 educators<sup>188</sup>;
- As of May 2024 — 7,000 teachers<sup>189</sup> (Figure 6).

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<sup>176</sup> Ibid.

<sup>177</sup> UNICEF. (2024). <https://www.unicef.org/emergencies/war-ukraine-pose-immediate-threat-children>

<sup>178</sup> Ibid.

<sup>179</sup> Educational Ombudsman of Ukraine. (2023). Over a million Ukrainian preschool girls and a million schoolboys are abroad. How to keep in touch with Ukraine? [In Ukrainian] <https://cutt.ly/dezGSQtK>

<sup>180</sup> Ibid.

<sup>181</sup> New Ukrainian school. (2023). Almost 400,000 Ukrainian students are abroad — MoES. [In Ukrainian] <https://cutt.ly/fezGGsmw>

<sup>182</sup> Educational Ombudsman of Ukraine. (2023). Title work. [In Ukrainian]

<sup>183</sup> New Ukrainian school. (2023). Approximately 25 % of Ukrainian students are currently abroad. [In Ukrainian] [In Ukrainian] <https://cutt.ly/1ezGH40d>

<sup>184</sup> Institute of Educational Analytics. (2023). Title work. P. 22. [In Ukrainian]

<sup>185</sup> Ukrinform. (2022). <https://cutt.ly/yezGVMTC>

<sup>186</sup> Cabinet of Ministers of Ukraine. (2022). [In Ukrainian] <https://cutt.ly/2ezGNxWW>

<sup>187</sup> Institute of Educational Analytics. (2023). Title work. P. 22. [In Ukrainian]

<sup>188</sup> New Ukrainian school. (2023). Almost 400,000 Ukrainian students are abroad — MoES. [In Ukrainian]

<sup>189</sup> Data provided to the authors of the study by the Institute of Educational Analytics.

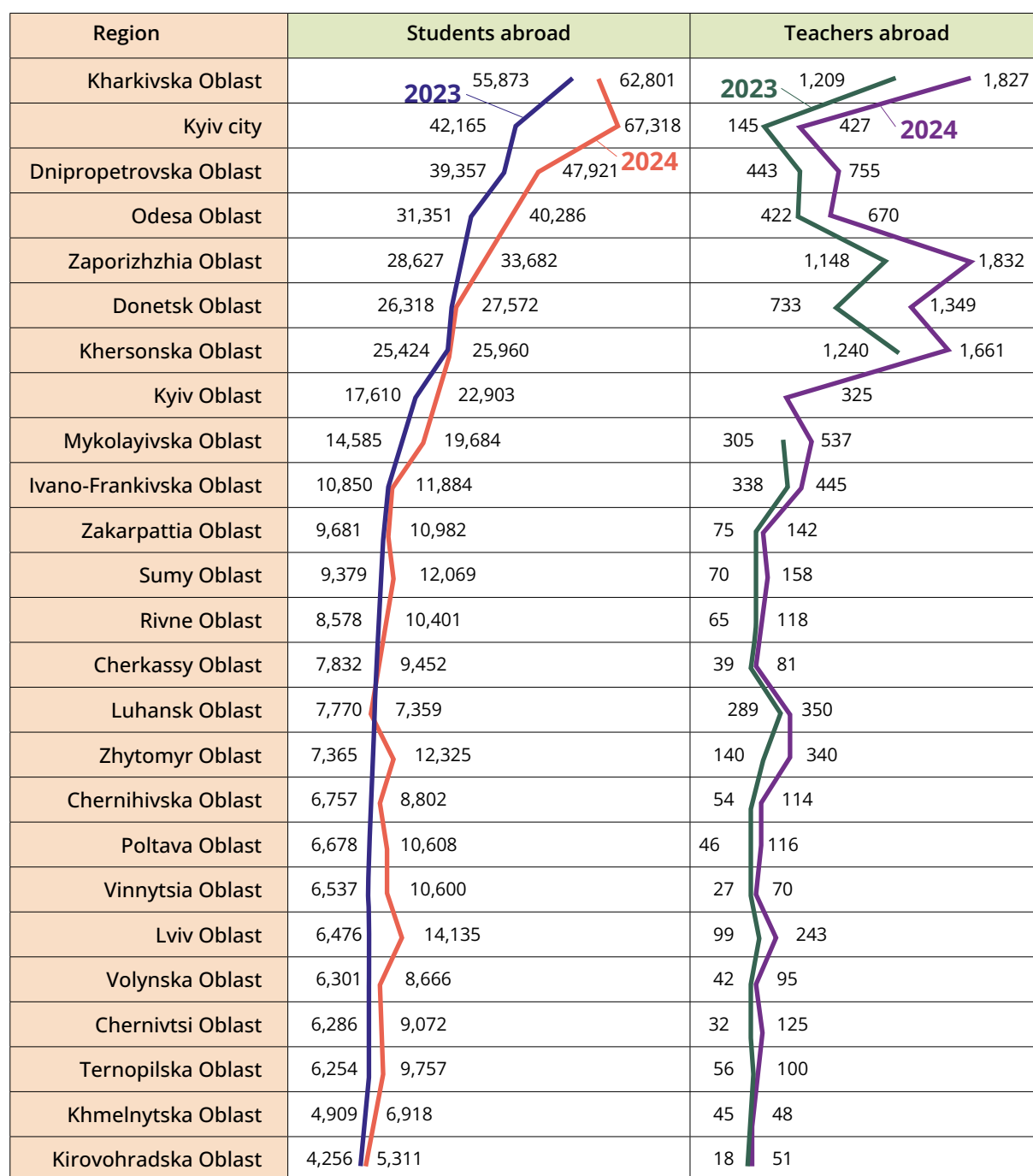


Figure 6. Regional Distribution of Students and Teachers Abroad as of May 2023 and May 2024<sup>190</sup>

According to CEDOS, teachers who remained in Ukraine faced increased workloads due to remote and blended learning, the need for additional psychological and pedagogical support for students, working in difficult or dangerous conditions, and a lack of opportunities for salary growth<sup>191</sup>.

As of September 1, 2023, Ukraine had 4.9 million internally displaced persons (IDPs), of whom 4.4 % (221,668) were students<sup>192</sup>. It should be noted that the number of students among IDPs has increased since the beginning of the full-scale Russian invasion

<sup>190</sup> Data for 2023: Institute of Educational Analytics. (2023). Title work. P. 22. Data for 2024 were provided to the authors of the study by the Institute of Educational Analytics. [In Ukrainian]

<sup>191</sup> Kogut, I., & Nazarenko, Yu. (2024). Working conditions of teachers: the impact of a full-scale war. CEDOS. C. 50–51. [In Ukrainian] [https://cedos.org.ua/wp-content/uploads/umovy-praczi-vchytel\\_ok-2.pdf](https://cedos.org.ua/wp-content/uploads/umovy-praczi-vchytel_ok-2.pdf)

<sup>192</sup> The Facts. (2023). Over the year, the number of IDPs increased by 300,000 people — Vereshchuk. [In Ukrainian] <https://cutt.ly/tezHqNle>

of Ukraine: if in the 2021 / 2022 academic year their number was 52,300, it increased to 164,700<sup>193</sup> the following year, and at the beginning of the 2023 / 2024 academic year, it grew by another approximately 56,000. The largest number of IDP students as of the end of the 2022 / 2023 academic year resided in Donetsk Oblast (40,870), Dnipropetrovsk Oblast (11,227), and Kyiv city (12,096)<sup>194</sup>.

As of spring 2024, about 26 % of Ukrainian territories are under occupation<sup>195</sup>. The exact number of Ukrainian citizens remaining in these areas is unknown, but it is known that 71,800 students from temporarily occupied territories attended Ukrainian schools remotely<sup>196</sup>.

Over two years of full-scale war, according to the UN Human Rights Office, 589 children (311 boys, 250 girls, and 28 individuals with unknown gender) were killed and 1,311 children (595 boys, 425 girls, and 291 individuals with unknown gender) were injured in Ukraine<sup>197</sup>.

The full-scale Russian invasion of Ukraine continues to damage Ukrainian schools. Despite changes in military tactics and different phases of the intensity of hostilities, educational buildings are subjected to attacks, leading to destruction and damage, and negatively impacting students and teachers. While all of Ukraine is under daily threat, the most extensive destruction and severe consequences are in the eastern and southern regions of Ukraine, where the intense fightings are taking place, and partially in the northern regions, which either were under occupation at the beginning of the full-scale invasion or border the aggressor state and face constant shelling.

## Learning Losses and Ways to Overcome Them

The issue of overcoming learning losses became a global concern due to the COVID-19 pandemic (2020–2022), when students lacked stable access to in-person education. In Ukraine, gaps in learning outcomes have deepened with the onset of the full-scale invasion. However, for a while, this issue was not prioritized in Ukrainian educational discourse. The primary concerns were the safety and mental state of children and their physical access to education. Since the beginning of 2023, the issue has gained importance, and ignoring it was no longer possible. It literally “exploded” and sparked many discussions: from terminology to the very fact of the presence of learning losses and strategies for overcoming them. The first important publications in this area were studies by the Ukrainian Centre for Quality Assessment in Education and the State Service for Quality of Education of Ukraine.

The Ukrainian Centre for Quality Assessment in Education conducted a review of international studies and provided definitions for key concepts: “educational losses”, “learning losses”, “learning gaps”, and “learning deficiencies”. This was an important step in forming

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<sup>193</sup> Institute of Educational Analytics. (2023). Title work. P. 21. [In Ukrainian]

<sup>194</sup> Ibid.

<sup>195</sup> TSN (2024). How much territory of Ukraine is under occupation: Zelenskyy answered. [In Ukrainian]  
<https://cutt.ly/EezHe7zu>

<sup>196</sup> Institute of Educational Analytics. (2023). Title work. P. 21. [In Ukrainian]

<sup>197</sup> Report on the human rights situation in Ukraine. December 1, 2023 — February 29, 2024. P. 10. [In Ukrainian]  
<https://cutt.ly/mezHtXtY>

the terminological field, as these concepts had not been used in Ukraine's legal documents<sup>198</sup>.

**Educational losses — losses of instructional time associated with interruptions in the educational process<sup>199</sup>.**

**Learning losses — any loss of knowledge, skills, or abilities and / or delays or interruptions in academic progress due to breaks in the learning of a particular student.**

**Learning gaps — significant and persistent differences in academic performance between different groups (categories) of students.**

**Learning deficiencies — educational content associated with learning losses<sup>200</sup>.**

According to observations by primary school teachers, learning outcomes have worsened in subjects such as Ukrainian language, foreign language, mathematics, and literary reading, and remained unchanged in subjects and courses such as art, design and technology, physical education, computer science, and "I Explore the World". In rural areas, more teachers report a decline in students' learning outcomes than in cities<sup>201</sup>.

At the end of the 2022 / 2023 academic year, the State Service for Quality of Education, supported by the SURGe project, conducted a nationwide monitoring of education quality under martial law, which revealed significant gaps in the learning outcomes of 6th and 8th-grade children in Ukrainian language and mathematics. The largest proportion of students (62 %) completed tasks at an average level<sup>202</sup>.

The international PISA monitoring, the results of which were published at the end of 2023, also recorded a decline in the performance of 15-year-olds in sciences, mathematics, and reading comprehension. The most significant decline (by 38 points<sup>203</sup>) was in reading literacy, with a decrease of 19 points in sciences and 12 points in mathematics<sup>204</sup>.

Thus, the monitoring conducted in Ukraine indicated that student performance has deteriorated compared to the pre-war period. The vast majority (85 %) of parents believe

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<sup>198</sup> Bychko, G., & Tereshchenko, V. (2023). Learning losses: essence, causes, consequences and ways to overcome them. Ukrainian Center For Education Quality Assessment. 31 p. [In Ukrainian] <https://cutt.ly/LezjuQOG>

<sup>199</sup> The State Service of Education Quality of Ukraine. (2023a). Study of the quality of the educational process in the conditions of war in the 2022–2023 academic year. 64 p. [In Ukrainian] <https://cutt.ly/0ezJu2xM>

<sup>200</sup> Bychko, G., & Tereshchenko, V. (2023). Title work. [In Ukrainian]

<sup>201</sup> The State Service of Education Quality of Ukraine. (2023a). Title work. [In Ukrainian]

<sup>202</sup> The State Service of Education Quality of Ukraine. (2023b). Nationwide monitoring study of the quality of education under martial law: Report on monitoring results. 263 p. [In Ukrainian] <https://cutt.ly/4ezJkwfM>

<sup>203</sup> In the PISA study, 20 points are roughly equivalent to one year of study. See: New Ukrainian school. (2023). PISA-2022: a brief overview of all the main results. [In Ukrainian] <https://cutt.ly/yezJRrJU>

<sup>204</sup> Bychko, G., Vakulenko, T., Lisova, T., Mazorchuk, M., Tereshchenko, V., Rakov, S., & Horokh, V. (2023). National report on the results of the international study of the quality of education PISA-2022. Ukrainian Center For Education Quality Assessment. 395 p. [In Ukrainian] <https://cutt.ly/UezJz67D>



that the learning gaps caused by the pandemic and the full-scale invasion will impact their children's education and future<sup>205</sup>.

The Ukrainian Center for Quality Assessment in Education identified several factors behind learning losses in Ukraine: living in temporarily occupied territories, living in areas of active hostilities, changes in residence, destruction of educational institutions, air raids, and power outages<sup>206</sup>.

Researchers from various countries have developed ways and tools to overcome learning losses. Specifically, OECD experts prepared an analytical document with examples of educational reform programs in different countries that can be used as a basis for developing strategies to address learning losses in Ukraine. This document suggests the following areas of work:

- Conduct systematic diagnostics of learning losses at the individual level;
- Adapt educational programs;
- Implement individual and group learning technologies, additional consultations, and summer schools;
- Use digital educational resources to address learning losses<sup>207</sup>.

The World Bank, in collaboration with international partners, developed a model for overcoming learning losses after the pandemic (RAPID), which includes the following components / guidelines:

- Reach every child to keep them in school.
- Assess learning levels regularly.
- Prioritize teaching the fundamentals.
- Increase the efficiency of instruction, including through catch-up learning.
- Develop psychosocial health and wellbeing<sup>208</sup>.

These five components form the basis of the framework recommendations for addressing learning losses developed by the MoES with the support of UNICEF<sup>209</sup>.

MoES has also developed and approved shortened curricula for children abroad, which can be used to address learning losses in subjects with a Ukrainian component: Ukrainian language, Ukrainian literature, history of Ukraine, and geography<sup>210</sup>.

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<sup>205</sup> Kogut, I., Nikulina, O., Syrбу, O., Zheryobkina, T., & Nazarenko, Yu. (2023). War and Education: How a Year of Full-Scale Invasion Affected Ukrainian Schools. CEDOS, savED. [In Ukrainian] <https://cutt.ly/eezJcd3E>

<sup>206</sup> Bychko, G., & Tereshchenko, V. (2023). Learning Losses: Essence, Causes, Consequences and Ways to Overcome [In Ukrainian]

<sup>207</sup> OECD. (2023). Education in times of crisis — Learning during Crisis. Acquaintance of Ukraine with the lessons learned by different countries of the world — Insights for Ukraine from across the Globe. [In Ukrainian] <https://cutt.ly/GezJmy23>

<sup>208</sup> World Bank, the Bill & Melinda Gates Foundation, FCDO, UNESCO, UNICEF, and USAID. (2022). Guide for Learning Recovery and Acceleration: Using the RAPID Framework to Address COVID-19 Learning Losses and Build Forward Better. <https://cutt.ly/1ezJWo4o>

<sup>209</sup> Ministry of Education and Science of Ukraine, UNICEF. (2023). Recommendations for the organization of programs to make up for educational losses. [In Ukrainian] <https://cutt.ly/UezJHwmE>

<sup>210</sup> Order of the Ministry of Education and Science of Ukraine "On approval of Recommendations on the use of modified programs on the Ukrainian language, Ukrainian literature, history of Ukraine, geography for general secondary education institutions" No. 701 (2024). [In Ukrainian] <https://cutt.ly/PezJTLE>

The Ukrainian Center for Quality Assessment in Education proposed ways to address learning losses with an evaluation of advantages and risks: repeating a year, learning during vacations, state-funded tutoring, creating integration classes, revising and adapting educational programs, developing additional content on key learning topics, methodological training for teachers to work with students who have learning losses, strengthening school autonomy, and improving teacher collaboration<sup>211</sup>.

The study also justified the need to develop a system for diagnosing learning losses, which would include: standardized testing at all or at least key stages of learning; long-term nationwide quality education monitoring on representative samples; local monitoring of success in mastering individual subjects or sections of educational programs; centralized online platforms for measuring learning losses<sup>212</sup>.

In Ukraine, some practical experience in overcoming learning losses has been developed. The Teach for Ukraine project was the first to introduce online tutoring support for children. As of 2024, many initiatives in Ukraine are developing diagnostic systems and strategies to overcome learning losses. Osvitioriia developed an online course and training for primary school teachers, Ukrainian language, and mathematics called “Catch Up”<sup>213</sup>.

With the support of the EdCamp Ukraine and Smart Education NGOs, the educational online platform “Povir”<sup>214</sup> was created as a pilot tutoring project to make up for learning losses and provide psychological support to children. At the initial stage, the project is aimed at middle and high school students, at their study of mathematics, Ukrainian and English. Individual training is organized by educators who have undergone special training in socio-emotional and ethical teaching, because the platform, in addition to academic abilities, is designed to strengthen the skills of stress resilience, promote communication and teamwork, develop creative and critical thinking, and support the general well-being of the child.

With the support of the SURGe project, diagnostic tests aimed at assessing learning losses in subjects such as Ukrainian language, mathematics, English language, history of Ukraine, geography, physics, chemistry, and biology have been developed and placed on the “All-Ukrainian Online School” platform<sup>215</sup>.

A separate strategic direction is consultations on overcoming learning losses through the network of digital educational centers (supported by UNICEF, SURGe, and saved projects) and summer camps (GoGlobal).

As of the time of the study, certain activities to address learning losses are underway in Ukraine. At the same time, most initiatives are implemented by international projects and organizations, and there is no centralized strategy. This prevents a comprehensive approach to addressing learning losses for all those in need.

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<sup>211</sup> Bychko, G., & Tereshchenko, V. (2023). Learning Losses: Essence, Causes, Consequences and Ways to Overcome. [In Ukrainian]

<sup>212</sup> Ibid.

<sup>213</sup> <https://osvitoriia.university/courses/nazdojenemo/> [In Ukrainian]

<sup>214</sup> <https://povir.in.ua/> [In Ukrainian]

<sup>215</sup> <https://lms.e-school.net.ua/> [In Ukrainian]

## CHAPTER 4. KEY CHALLENGES FACED BY SCHOOLS AND STRATEGIES FOR THEIR RESOLUTION

The educational process in Ukrainian schools began to recover after the full-scale invasion and the announcement of additional vacations starting March 14, 2022. The pandemic experience allowed for a relatively quick transition to remote learning. Over time, the methods of organizing education were adapted according to the local situation. Decisions about where and in what format to conduct classes were made by regional military administrations and educational institutions. During the 2022 / 2023 academic year, 12,996 schools opened their doors to students<sup>216</sup>. “The mode of instruction was determined by the security situation in the region, the availability of shelters in schools, and the condition of the school building... As of December 2022, a third (36 %) of schools conducted lessons remotely, another third (36 %) used a blended format, and 28 % of schools operated in-person”<sup>217</sup>.

Throughout 2022, efforts were directed at providing access to education for the maximum number of students. Many educational platforms and institutions of various ownership types opened access to their electronic educational resources and included anyone interested in online lessons. Content was added to the “All-Ukrainian School Online” platform<sup>218</sup>. The “Learning Without Limits” project for grades 5–11 was launched, created jointly by MoES, the Ministry of Culture, the Ukrainian Institute for Educational Development, Ukrainian TV channels, and online platforms. This project involved recording and broadcasting video lessons on various subjects on television<sup>219</sup>.

Later, MoES released information on the specifics of organizing the 2022 / 2023 academic year and step-by-step recommendations for preparing for it<sup>220</sup>. The document detailed the conditions under which the educational process could be conducted in-person, remotely, or in a blended or individual format.

An important step taken by MoES to support education for children abroad was the creation of an information page with explanations for parents and teachers<sup>221</sup>. Subsequently, DECIDE, an electronic platform with Ukrainian educational programs translated into English and answers to key questions from parents and teachers about organizing education for children abroad, was launched.<sup>222</sup> Osvitioriia, with support from UNICEF, created

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<sup>216</sup> Kogut, I., Nikulina, O., Syrbu, O., Zheryobkina, T., & Nazarenko, Yu. (2023). War and Education: How a Year of Full-Scale Invasion Affected Ukrainian Schools. CEDOS, savED. P. 30. [In Ukrainian] <https://cutt.ly/eezJcd3E>

<sup>217</sup> Ibid.

<sup>218</sup> [In Ukrainian] <https://lms.e-school.net.ua/>

<sup>219</sup> MoES (2022). “Education without borders”: an educational project for schoolchildren of grades 5-11 will be launched on Ukrainian television. [In Ukrainian] <https://cutt.ly/0exkyXUL>

<sup>220</sup> MoES (2022). Features of the organization of the 2022/23 academic year. [In Ukrainian] <https://cutt.ly/Dexkdi9B>

<sup>221</sup> MoES (2022). Organization of education for Ukrainian children abroad and admission campaign. [In Ukrainian] <https://cutt.ly/4exkiwZh>

<sup>222</sup> The platform was created with the support of the Ukrainian-Swiss DECIDE project.

the “Together for Learning” platform, which offers supplementary materials and answers to questions about educating children during wartime in Ukraine and abroad<sup>223</sup>.

Our analysis of research publications and the results of the focus groups and interviews we conducted allows us to identify a number of current problems related to the process of adapting schools to martial law. They include the organization of the educational process, enhancing its accessibility; learning in distance and blended formats; security issues; organization of the educational process for students who are abroad and in the occupied territories. We will try to briefly characterize each of the problems, provide examples of strategies used to overcome them, and also highlight the issues that remain unresolved.

## Inaccessibility of In-Person Learning for Many Children

The problem of restoring full in-person learning in Ukrainian schools has existed since the pandemic. The onset of the full-scale invasion only made it more complex.

In the 2023 / 2024 academic year, according to the State Service for Quality of Education, 61 % of Ukrainian schools operated in-person, while others used a blended format (24 %) or remote learning (15 %). The main obstacles to full in-person learning were identified as the security situation in the region, lack of shelters, and students leaving the locality where the school is located<sup>224</sup>.

Transitioning to full in-person learning could lead to a loss of students who are abroad. For this category of students, there is an option to choose an alternative learning format.

## Lack of Fully Equipped Shelters

The presence of a shelter in an institution is a necessary condition for a school to operate in-person. In the summer of 2022, only 8 % of schools had shelters<sup>225</sup>. By the end of 2023, the number of schools with specially equipped shelters had increased to 87 %, with the majority having only the most basic shelters<sup>226</sup>.

*“A very basic shelter is a basement or cellar, or any underground structure that provides conditions for temporary occupancy (for at least 48 hours) in case of danger to life and health, aiming to reduce the indirect effects of conventional means of destruction during military (combat) actions and / or terrorist acts”. — Article 32 of the Civil Protection Code of Ukraine*

<sup>223</sup> <https://osvitanow.org/> [In Ukrainian]

<sup>224</sup> The State Service of Education Quality of Ukraine. (2023). How educational institutions started the 2023/2024 academic year. [In Ukrainian] <https://sqe.gov.ua/2023-2024-nr-monitoring/>

<sup>225</sup> Slovo i dilo. (2022). How many Ukrainian schools have shelters — the assessment of the Ministry of Education and Science of Ukraine. [In Ukrainian] <https://cutt.ly/vexkn1w3>

<sup>226</sup> General education. (2024). How many schools in Ukraine already have reliable shelters? The Ministry of Education named the number. URL: [In Ukrainian] <https://vseosvita.ua/c/news/post/99100>

Only specific school types, such as boarding schools(‡), or those located near nuclear energy facilities or military infrastructure(‡), did not face significant problems with shelter arrangements, as these institutions already had rooms designed as shelters at the construction stage.

**“Our shelter was created largely thanks to parents because the city council allocated us very little funding, and our building was constructed back in 1871. We have no basement facilities at all. We rented space from a neighboring factory, literally 50 meters away, and equipped it as a shelter, but it cannot accommodate all participants in the educational process at once, so we study in a blended format based on a rotational model.”**

However, having a shelter does not guarantee that it can accommodate all participants in the educational process or that it has the necessary conditions to continue the educational process during air alerts. School management had to arrange the basic shelters according to the capacity of their facilities and to seek additional basement spaces in nearby buildings. In case of insufficient space in the shelter for all students at once, schools implement flexible timetables where in-person learning is conducted for specific classes two or three days a week(‡). Alternatively, learning could be organized in shifts: for example, transporting students and teachers to a neighboring community with a shelter and generator for classes in the second shift(‡). Another option was to gather students in-person for part of the lessons in the morning and conduct the rest remotely in the second shift.(‡)

**“Our school has a small shelter, and with 950 students attending in a blended format, we practically work in three shifts. We prioritize the primary school, where students attend every day for about 2.5 hours. Students in grades 5–11 attend in-person classes two days a week and learn remotely three days a week. This arrangement helps us cover all children with education.”**

Tetiana Zavtur, Principal of Odesa Lyceum No. 81(‡)

The issue of equipping full-fledged shelters that would allow uninterrupted educational processes during frequent air alerts remains unresolved in many schools.

It is unclear how schools that cannot equip shelters will operate in the future. At the time of preparing this research, it is known that MoES is developing a “School Offline” policy<sup>227</sup>, which plans to allow such institutions to operate remotely, but only under certain

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<sup>227</sup> MoES (2024). School is offline: returning children to face-to-face education.  
[In Ukrainian] <https://offlineschool.mon.gov.ua/>



conditions (such as a sufficient number of grades and a minimum number of students per class<sup>228</sup>). Inconsistent communication on this issue in the summer of 2024 led to significant concerns within the educational community about the potential closure of some schools that do not have the minimum necessary number of students for in-person and/or remote learning.



Shelter of Novovolyn Lyceum No. 8 (Volyn Oblast)

<sup>228</sup> MoES (2024). View the network of distance schools. [In Ukrainian] <https://tinyurl.com/2d4bv2vw>





The shelter of the Prylymsky Lyceum of the Avangard settlement council (Odesa region) was equipped thanks to co-financing from the community and the DECIDE project

## Prolonged Stay in Shelters After the End of Scheduled Lessons

In cases where an air alert lasts for an extended period of time, parents may want to retrieve their child from the shelter before the alert ends. Current legislation prohibits this: leaving the shelter is only allowed “in the event of receiving information about the absence of danger”<sup>229</sup>. Relevant clarifications have been provided by MoES<sup>230</sup> and the Education Ombudsman<sup>231</sup>. Despite this, principals and teachers often violate these prohibitions, appealing to the “human factor”, claiming they cannot refuse to return a child to their parents.

**“A few times the alert lasted up to five hours, and parents started picking up children from the shelter, so we adjusted the menu so that for the second course, we prepare something that can be served without a side dish and easily made into a sandwich. Although there are enough places in the shelter, we cannot provide a full lunch”(‡).**

<sup>229</sup> Ministry of Internal Affairs (2018). Requirements for the maintenance and operation of protective structures of civil defense, clause 15 of chapter 4 of section VII. Approval by Order No. 579. [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/z0879-18#n534>

<sup>230</sup> Osvitoria media. (2023). Is it possible to take a child from the school shelter during an alarm: the comment of the representative of the Ministry of Education and Science of Ukraine. [In Ukrainian] <https://tinyurl.com/3rjc6kys>

<sup>231</sup> Educational Ombudsman of Ukraine. (2022). How should the educational institution and the participants of the educational process act during an air raid. [In Ukrainian] <https://tinyurl.com/5asayht2>

“We give the children to their parents ‘under the register,’ ‘under a signature.’ Although I know our minister said not to return the children. Well, I’d like to see how that works — not returning the children to their parents. We made registers for each class, they are kept in the shelters, and parents sign them when picking up their children during an alert... Sometimes, if the alert drags on, all classes are picked up within one or two hours. If this happens at the beginning of classes, generally parents do not pick up their children. I noticed that parents of younger students do not pick up their children because all kids are covered by extended day groups. For middle school students, sometimes children are picked up starting from lesson four, five, or six”(‡).

Some representatives of the surveyed schools stated that they do not release children to their parents until the air alert has ended.

“We do not release children from the shelter during an air alert, neither under a signature nor in any other way. This has not made the school popular”(‡).

There is a need to provide technical arrangements and individual psycho-emotional support during prolonged stays in shelters for. In most cases, the teachers who are sometimes required to stay in shelters outside of working hours are not compensated for their time.

The issue of clear instructions for actions in case of an air alert announced during the centralized transportation of children to school remains unresolved(‡)<sup>232</sup>.

## **Education Interruptions due to Frequent and Prolonged Air Raid Alerts and Power Outages**

Since the fall of 2022, when Russia began massive rocket attacks on energy infrastructure in Ukraine, power outages and stable access to the Internet have jeopardized both in-person and remote learning. There is experience in adapting the timetable according to blackout schedules: for example, important subjects for students were taught

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<sup>232</sup> The section “Transportation of organized groups of children” of the relevant regulatory document, approved by the Resolution of the CMU No. 176 (1997), as amended, does not regulate the mentioned issue in any way. [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/176-97-%D0%BF#n232>

synchronously, while others were taught asynchronously.<sup>233</sup> Some schools received generators, allowing them to operate during power outages.

## Challenges Accessing Ukrainian Education for Children Abroad

At the beginning of the full-scale invasion by Russia, the problem of complicated access to Ukrainian education for children abroad was particularly pressing, as adapting to new conditions, setting up daily life, different time zones distracted students from learning in Ukrainian schools. For children outside Ukraine, Ukrainian schools created opportunities for remote learning. However, by the decision of the authorities in certain European countries, Ukrainian students were required to attend schools in their host countries starting from the 2022 / 2023 academic year. Combining remote learning in Ukrainian schools with in-person schooling in the host country led to excessive workloads for children.

Three solutions were proposed to address this situation.

Firstly, for students abroad attending foreign schools, the MoES approved a shorter educational program that only includes subjects in Ukrainian studies<sup>234</sup>. Some Ukrainian schools, as evidenced by our research, use this program, while others do not.

Secondly, MoES instructed local authorities to identify classes and schools (no more than five schools per Ukrainian region) where this “shortened” program could be remotely studied by students abroad<sup>235</sup>. This decision has not been implemented.

The third tool was the transfer of students studying abroad to family or external forms of education.

**“32 students are on family education, of which 31 are abroad. They join online lessons during air alerts. They stay in touch with our school because they do not know whether they will stay abroad or return. We had a case where a girl returned, attended school for a month, and then went abroad again.”**

Lyudmila Deiko, Principal of Bohdanivka Gymnasium(†)

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<sup>233</sup> Mykola Shpak, director of the Mykhailo-Kotsyubinsky Lyceum(†).

<sup>234</sup> Order of the Ministry of Education and Science of Ukraine “On approval of the Standard educational program for the education of children who left Ukraine as a result of the full-scale invasion of the Russian Federation and are receiving education simultaneously in educational institutions of the host country and Ukraine” No. 1014 (2023). [In Ukrainian] <https://cutt.ly/mel7U4Ko>

<sup>235</sup> Order of the Ministry of Education and Science of Ukraine “On ensuring the education of students who left Ukraine as a result of the full-scale invasion of the Russian Federation and are receiving education in educational institutions of the host country and Ukraine” No. 1022 (2023). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/z1535-23>

**“Last year, we had 185 students on family education; this year, there are 76 students. We are transferring them to external education (256 students). We are directing ‘external students’ to our online platform MS Teams.”**

Tetyana Zavtur, Principal of Odesa Lyceum No. 81(‡)

**“At our school, there are distance classes... for students studying in schools abroad. Only the Ukrainian studies component is taught there... These are evening classes with one or two lessons, mostly synchronously, partially asynchronously. And there is great benefit from the All-Ukrainian School Online platform, that is, video lessons that are always accessible.”**

Olena Yakovchuk,

Principal of Chernihiv Secondary School I-III Levels No. 3(‡)

Our respondents note that it is important to maintain contact with students abroad and encourage them to continue their education in Ukrainian schools to avoid losing them entirely. However, doubts may arise about the quality of such education.

## **Challenges in Organizing Education for Children in Temporarily Occupied Territories of Ukraine**

The White Book on education in temporarily occupied territories of Ukraine highlights the following characteristics of the educational process:

- The absence of schools operating under the Ukrainian education system in offline mode; the vast majority of institutions have been displaced and provide partial education in an online format.
- Students have limited access to Ukrainian education due to safety concerns, limited internet access, the stance of parents or guardians, and the overall influence of the occupying authorities.
- Most teachers have relocated to other regions of Ukraine or abroad and are working remotely or at new locations<sup>236</sup>.

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<sup>236</sup> Hryshchuk, R., Krasnenko, M., Mozgova, Ya., and others. (2024). Restoration of the educational process in the de-occupied territories. White book. Analytical report based on the results of the study of the state of education in the temporarily occupied territories. Kyiv, Charitable Foundation “Solomyanski Kotik”, 157 p. [In Ukrainian] <https://tinyurl.com/2p99awua>

Access to the Ukrainian education is extremely complicated for students in occupied territories. Maintaining stable communication with them is a top priority for schools with such students. Teachers and school administrators generally use a personalized approach to educate students from occupied territories.

It should be assumed that, in this situation, students are usually unable to regularly attend online classes, internet communication with them is challenging, and convenient messaging platforms should be used for interaction instead of educational online platforms(‡). Moreover, continuing education in Ukrainian schools is potentially dangerous for both students and their parents, as the primary goal of the Russians in occupied Ukrainian territories is to integrate them into the Russian education system.

## **Non-compliance with Sanitary Regulations Regarding the Duration of Online Lessons**

Some school administrators acknowledge that in order to complete the educational program, they have to violate sanitary regulations concerning the maximum duration of synchronous online lessons during remote or blended classes(‡)<sup>237</sup>. Significant learning losses (such as interruptions due to air alerts or power outages) only exacerbate the problem.

## **Deterioration of the Psycho-Emotional State of Students and Teachers**

The war and the constant stress experienced by participants in the educational process have negatively affected their psycho-emotional state<sup>238</sup>.

Typically, the basic responsibility for providing psychological support to students in schools falls on teachers. As a result, school leaders have focused on enhancing teachers' qualifications in the field of psychological support and working with students with special educational needs(‡).

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<sup>237</sup> "In the conditions of a martial law, an emergency situation of another nature, the continuous duration of educational classes in the organization of distance learning in a synchronous format should not exceed for students:

Grades 1–2 — 2 study sessions of 30 minutes each or 3 — 20 minutes each;

Grades 3–4 — 2 educational classes of 45 minutes each or 3 — 30 minutes each, or 4 — 20 minutes each;

Grades 5–6 — 2 study sessions of 45 minutes each or 3 — 35 minutes each, or 4 — 25 minutes each;

Grades 7–9 — 2 classes of 45 minutes each or 3 — 40 minutes each, or 4 — 30 minutes each, or 5 — 25 minutes each;

Grades 10–11 — 3 classes of 45 minutes each or 4 — 35 minutes each, or 5 — 30 minutes each, or 6 — 25 minutes each" (Sanitary regulations for institutions of general secondary education, clause 10 of section V. Approved by order of the Ministry of Health No. 2205 (2020). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/z1111-20#n564>

<sup>238</sup> Ukrinform. (2024). Education during the war. Presentation of the results of the second year of the study. [In Ukrainian] <https://tinyurl.com/2248dnu5>

**“During the vacation period in March, we conducted sessions for our teachers (21 people) on recognizing psychological problems in students: what services to contact, how to communicate with parents, etc. We have a total of 42 educators, including part-time teachers”.**

Mykola Shpak, Principal of Mykhailo-Kotsiubynskyi Lyceum(‡)

Schools have psychologists and social educators who also conduct training and individual consultations upon request. However, students do not always have the intention or confidence to seek help from such professionals. Moreover, representatives of the psychological services in secondary education institutions face problems related to limited access to students, partly due to the remote work format of the institutions<sup>239</sup>.

Special attention is paid by school management to internally displaced students, who may have experienced very different conditions of war, loss of loved ones, and displacement compared to their peers from less affected parts of Ukraine. Schools devote attention to working with these students and their parents, especially when such children may experience panic attacks during air alerts. Non-traditional methods of assistance and distraction, such as art therapy or equine therapy, are often crucial.

**“Our school has internally displaced students who have truly experienced terrible events and suffer from panic attacks. For this purpose, there are separate rooms in the shelter where they can work with a psychologist, medical worker, and class teacher. The school has its own stables, which have been functioning for 12 years. Such equine therapy helps students calm down and receive a dose of positivity after prolonged air alerts and during panic attacks. Caring for animals, feeding them, or petting them helps stabilize students’ emotional states. Additionally, this opportunity to interact with and care for animals helps students, particularly internally displaced ones, adapt.”**

Oksana Voloshchuk, Principal of Zvenyhorodskyi Lyceum(‡)

International support programs in this area are also important, such as the mental health support program “How Are You?”.

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<sup>239</sup> Kogut, I., Budz, O., Zheryobkina, T., & Nazarenko, Yu. (2024). Psychological services in schools: the impact of full-scale war. Analytical report on the results of the study. Kyiv. Center for Innovative Education “Pro.Svit”. C. 6–9. [In Ukrainian] <https://tinyurl.com/ye2b3tdr>



Urgent issues remain regarding the organization of intensive in-person training for schoolteachers and the involvement of psychologists, as some schools have vacant positions or involve students in these roles.

Like students, teachers also experience negative psycho-emotional effects and work under excessive stress. A survey of educators conducted in the fall of 2023 revealed a negative trend: 87 % of respondents among teachers expressed a need for more time to recover. Only 8 % of respondents indicated that this need was not felt. According to the survey, 78 % of teachers admitted to feeling drained and constantly fatigued. 82 % of respondents noted that their anxieties increased after the start of the full-scale war<sup>240</sup>.

Our respondents noted the following solutions that helped reduce the workload on teachers and improve their psycho-emotional state:

- Ability to choose the optimal teaching format: "We have taken the approach of first allowing teachers to choose the teaching format that they find most effective and optimal... The workload for teachers is managed according to the scheduling of lessons in shifts. The lesson schedule takes into account both online and offline loads for teachers, as well as teacher transfers between shifts<sup>241</sup>".
- Ability to plan workload independently: "The norm that allows teachers to independently determine their teaching time in emergencies has been helpful. So, 30 minutes for a lesson plus 15 minutes for consultation. Lessons in the morning, consultations in the afternoon for the same subjects taught in the morning<sup>242</sup>".
- Rescheduling of vacations: "...The principal suggested that teachers take their vacations during school holidays throughout the academic year, to which 90 % of the teaching staff responded positively<sup>243</sup>".
- Involvement in extracurricular activities: Encouraging teachers to engage in activities such as learning foreign languages, volunteer initiatives, and team building.
- Inviting psychologists and trainers: Bringing in psychologists and trainers from international or charitable initiatives focused on mental health support for teachers<sup>244</sup>.
- Encouraging trainings participation: Encouraging participation in training on providing psychological support to students and colleagues.

Overall, issues related to the psycho-emotional support of educational process participants require deeper investigation, consideration of the various conditions under which participants operate, and the development of specific nationwide programs.

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<sup>240</sup> Osvitoria media. (2023). 87 % of Ukrainian teachers need more time to recover: survey results. [In Ukrainian] <https://tinyurl.com/2wrr2a63>

<sup>241</sup> Oksana Proskura, director of the Gymnasium of Oriental Languages No. 1 in Kyiv(§).

<sup>242</sup> Ludmila Gerasimenko, director of the Dnipro-Rudnen specialized school of grades I-III "Talent"(§).

<sup>243</sup> Ibid.

<sup>244</sup> Viktor Mishin, director of the Chervonodolinsky Lyceum(§).

## CHAPTER 5. EXPERIENCE OF ADAPTING THE EDUCATIONAL PROCESS IN SCHOOLS TO MARTIAL LAW

This chapter describes the typical decisions made by school administrators to restore the educational process during the war. At the outset of the study, it was hypothesized that in each focus group, formed based on the regional location of the schools, the decisions made would be similar. This hypothesis was only partially confirmed. For the Western and Central regions of Ukraine, decisions were indeed similar both at the start of the full-scale invasion and in 2023-2024. However, in regions located along the front line, in occupied or recently liberated territories, each decision was unique. The study aimed to identify common patterns in the process of adjusting the educational process depending on the region where the school was located. Such commonalities were found, although the unifying factor was not the school's region but the conditions it faced.

The study revealed that schools' actions to adapt to wartime conditions depended on factors such as:

1. Whether the school was located in controlled or occupied territory.
2. Whether the school buildings were damaged or destroyed.
3. Whether the school had a shelter.
4. The security level of the region where the school was located (proximity to the front line, shellings).

Our interview and focus group questions were structured to cover the key decisions made at the beginning of the full-scale Russian military aggression and analyze how the educational process was organized by the 2023 / 2024 school year. This chapter outlines the range of decisions made by schools in the following areas:

1. What decisions helped restore the educational process at the start of the full-scale invasion?
2. How did student migration occur?
3. In what formats are schools operating at the time of the study?
4. How is the safety of participants in the educational process ensured?
5. What are the main causes of learning losses, and how can they be addressed?
6. How is psychological support organized for students and teachers?
7. What support is provided to internally displaced students?
8. How is the education of students abroad being handled?

The logic behind the presentation of the research results is based on this list of questions: we describe the decisions mentioned in the focus groups for each of these questions below.

## **Key Decisions on Resuming the Educational Process After the Full-scale Invasion**

The full-scale military invasion of Ukraine forced school administrators to make decisions concerning the safety of students and teachers, whether to continue or suspend the educational process, evacuate the school and staff, etc. On the national level, a two-week school break was announced. Local authorities provided directives to school administrators on actions to take in emergency situations, though such instructions often came post-factum as events were unfolding rapidly. The results of our study showed that clear and coordinated guidance was not always provided across all regions of Ukraine: schools that found themselves under occupation or near the frontlines often lacked clear instructions on what actions to take in such circumstances and therefore had to make independent decisions. The autonomy granted to school administrations regarding the organization of the educational process allowed them to shorten or extend the break, organize online lessons for students, and use all available communication channels. In some cases, principals took responsibility beyond their authority, making decisions without approval of local authorities, such as ending the school year early, issuing students their documents, and assisting with evacuations. Such decisions were driven by the breakdown of vertical communication, the absence of ready-to-implement action plans, and, in some cases, local education authorities cooperating with the occupying forces.

**“In the first days after the Russian invasion, we were in a state of shock. There was no electricity, various rumors were circulating: they’re advancing here, they’re moving there, they’re already near Kherson, beyond Kherson, now heading to Snihurivka... Then our boys, our Armed Forces, entered our village. Things became calmer.”**

**Viktor Mushyn, Principal of Chervonodolynskyi Lyceum(‡)**

A brief summary of the decisions made by educational institutions, taking into consideration local authorities’ recommendations (if available) and depending on the conditions faced by the school, is provided in Table 1.

### Key Decisions Regarding the Restoration of the Educational Process Following the Full-Scale Invasion in Relation to the Conditions Faced by the School

Conditions Faced by the School	Key Decisions Regarding the Restoration of the Educational Process
School on occupied territory	<p>Early termination of the academic year and issuance of student documents (alternative — extended break).</p> <p>Assistance in evacuating part of the teaching staff.</p> <p>Resumption of the educational process in a remote (online) format.</p> <p>“Relocation” of the institution to another building in a controlled area within the region (an uncommon decision).</p>
School partially destroyed, no power supply, internet connectivity issues; alternative or modular buildings <sup>245</sup> may be available	<p>Suspension of the educational process until communications are restored, followed by a transition to remote learning.</p> <p>Search for and equipping of modular buildings for in-person classes; use of smaller available spaces for in-person consultations.</p>
School destroyed, no alternative premises available or accessible for education	<p>Announcement of a two-week or longer break (if necessary), followed by a resumption of classes in a remote format; some schools (mostly private) decide to operate in a blended learning format.</p>
School remains intact, but access is limited (due to insufficient shelter capacity or frequent shelling)	
School remains intact, located in a relatively safe region, with shelter	

Schools located in occupied territories found themselves in the most challenging conditions. They were forced to terminate the 2021 / 2022 academic year early. Some schools managed to relocate to territories under Ukrainian control, although this is not a typical solution for secondary schools. School administrators made decisions to issue students’

<sup>245</sup> By alternative premises we mean buildings that have shelter and are suitable for use for the organization of the educational process: other schools, modular buildings, cultural centers, libraries, preschools, village councils, etc. Modular buildings are those built from prefabricated ready-made structures (modules).

documents early so that they could evacuate and continue their education in safer regions of Ukraine. Some schools extended their breaks until the situation stabilized (either through de-occupation or relocation of the school).

**“We traveled across the Mykolaiv region with my deputy, handing out diplomas to graduates. In some cases, we even handed them out on the road: we chose a green spot and gave the documents to the students there. It was so emotional, it brought tears to our eyes”.**

Viktor Mushin, Director of Chervonodolynskyi Lyceum(‡)

According to the Ministry of Education’s recommendations, all schools declared breaks for two weeks or more immediately after February 24, 2022. School premises in regions far from the frontlines, particularly those with shelters, were often used for humanitarian purposes until the end of the 2021 / 2022 academic year. They served as temporary housing for internally displaced persons (IDPs), support points for the military, collection sites for humanitarian aid, etc.

Schools whose buildings were completely destroyed by shelling, and which had no alternative premises to move to for resuming in-person or hybrid learning, switched to remote work. Our study results have identified four strategies for adapting the educational process that schools employed at the beginning of the full-scale Russian invasion. Any one school could implement only one or simultaneously several strategies.

Strategy 1: Early termination of the academic year (schools in occupied and some front-line territories) and resumption of the educational process in a remote format for the new academic year.

Strategy 2: Relocation of the school from occupied territory to a building in a controlled area (schools in occupied territories).

Strategy 3: Resumption of the educational process in a remote format (schools in controlled territories).

Strategy 4: Resumption of learning in a hybrid format (schools in relatively safe areas with available shelters).

The analysis of schools’ experiences, which participated in the focus group study, allowed for the identification of decision-making algorithms for adapting the educational process to the war (see Figure 7).

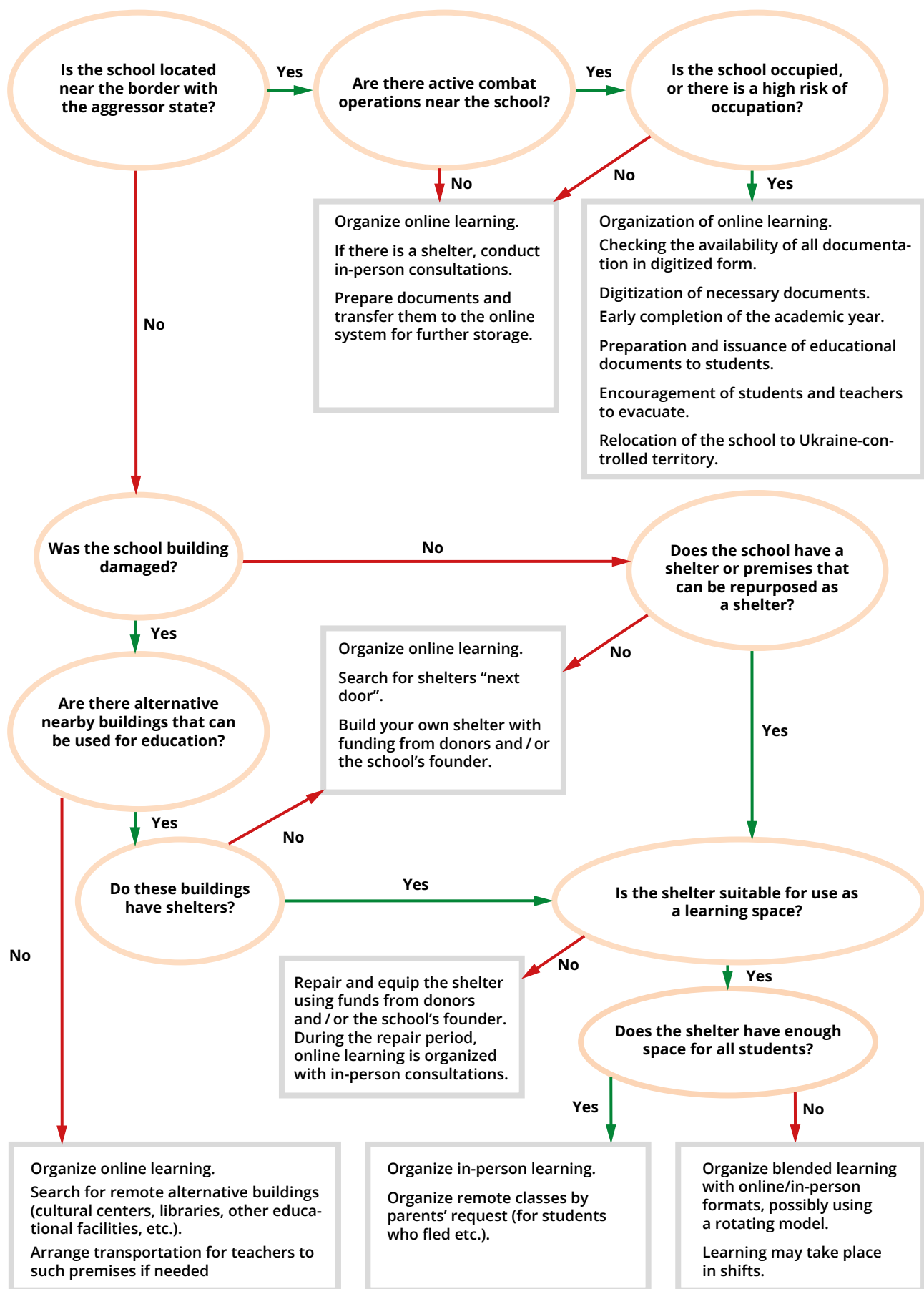


Figure 7. Decision-making algorithms by schools for adapting the educational process to wartime conditions



## Migration of Students

With the onset of the full-scale military invasion, students massively evacuated to safer territories within Ukraine and abroad (Table 2).

*Table 2*

**Student Migration Based on the Conditions of the School**

Conditions of the School	Student Migration
School in an occupied territory	Mass evacuation of children to other regions of Ukraine and abroad; some children remain in the TOT with their parents; schools facilitate the evacuation of children.
School destroyed, no alternative facilities / no access to them	Most students from these schools have evacuated to other regions of the country or abroad; those who stayed are on distance or blended learning at their current school or have transferred to other institutions.
School partially destroyed or alternative facilities available	
School intact, but access limited (due to insufficient shelter capacity or frequent shelling)	A small number of IDPs are accepted for enrollment; distance learning is organized for students abroad.
School intact, located in a relatively safe region, with a shelter	

At the start of the full-scale invasion, temporarily displaced students could attend two Ukrainian schools simultaneously: in-person at a school in their new place of residence and remotely at their previous school. Later, some fully transitioned to educational institutions in their new location.

Schools in all regions accepted internally displaced students, organized remote learning for both their own students and new ones who had moved abroad. Many schools located near Ukraine's western borders became temporary shelters for displaced students (IDPs), who later left for abroad with their parents.

## Learning Formats in Which Schools Operate During the War

In this study, learning formats refer to both the modes of education provided by schools (distance, in-person, and individualized) and the overall organization of the educational process (through combining these forms) adopted by schools in response to the challenges of war. The main decisions made by educational institutions are summarized in Table 3.

*Table 3*

### Learning formats in which schools operate, depending on the conditions they face

Conditions in which the school operates	Learning Formats
School in occupied territory	Online; some children, while in occupation, study online at Ukrainian schools.
School is destroyed, no alternative premises / access to them is impossible	Online; in some cases, students join platforms of other educational institutions with or without official enrollment.  Creation of in-person consultation points.
School is partially destroyed or there are alternative premises (another school, modular building)	Online or blended (consultations or several shifts depending on the number of alternative premises and shelter capacity); second shift education in the premises of another educational institution.
School is preserved but access to it is limited (due to insufficient shelter capacity or frequent shelling)	Blended learning.  Synchronous in-person and online learning; in-person learning in the first / second (sometimes third) shift.
School is preserved, located in a relatively safe region, and has shelter of the necessary capacity	In-person learning, except when transitioning to online format at the request of local authorities; synchronous in-person and online learning if desired by students / parents.

As of the first half of 2024, schools evacuated from temporarily occupied territories are operating online. Some children remaining in occupied areas are studying online at Ukrainian schools.

There is a case of the Mariupol Lyceum relocating to Kyiv and organizing its activities as an educational institution where students both learn and reside.

Educational institutions in areas of active combat or nearby, where shelters are available, practice setting up consultation points.

Some schools that have been damaged temporarily operate from the premises of other institutions or in temporary spaces / modular schools equipped with donor support from international and charitable organizations. Education in such institutions mostly takes place in a blended format. Students often attend in multiple shifts.

Most schools whose shelters cannot simultaneously accommodate all students operate in a blended format. Popular “blended” learning options within a single class include:

- One week of in-person learning, followed by one week of online learning.
- Three days a week of in-person learning, two days of online learning.

#### **Experience of Volodymyrets Lyceum “Collegium”, Rivne Region(‡)**

The school had five graduating classes, with 50 % of students from other settlements. The school administration surveyed parents about the possibility of organizing in-person learning. It was decided to resume in-person learning for grades 1, 9, and 11 from September 2022, while the remaining grades continued with online learning.

Each classroom was equipped for both blended and online learning, allowing teachers to work in both modes. Students could use school equipment for learning needs.

Due to the school's proximity to a nuclear power plant, a shelter was built ten years ago. It has two blocks and allows lessons to continue during alerts (with a 10–15 minute delay for moving students and staff to the shelter and resuming lessons).

School staff often prioritize in-person learning for primary (especially first grade) and graduating classes (students in these classes learn in-person most or all of the time).

Some schools practice synchronous in-person and online learning through live video streaming of lessons (part of the class is in the classroom, while the other part connects live via the internet). This method is very difficult to implement in practice, so few educational institutions use it.

Sanitary regulations on the maximum duration of online lessons are often violated (see more in Chapter 4).

### Experience of Apostolivsk Lyceum No. 1, Dnipropetrovsk Region(‡)

In July 2022, the school was completely destroyed by three S-300 missiles. Temporarily, the school was provided with space on kindergarten premises. Currently, the school has several classrooms in Lyceum No. 3, where teachers work and there is one room for students. The shelter accommodates 50 students. A schedule for in-person learning has been created. Only two classes can attend in-person classes on any given day. Only one class of 29 students received parental consent for in-person learning. This is one first grade. Students attend classes three days a week. Another first grade studies online. A digital center to address learning losses for students from three schools is planned to be set up at the local cultural center. A modular school is also planned to be built for the lyceum, which would enable blended learning for all students.

## Safety of Participants in the Educational Process

With the start of active combat operations in Ukraine, the main safety condition for conducting the educational process became the presence of a shelter. This factor has influenced and continues to influence the choice of learning format by schools, access to education, and the overall quality of the educational process.

Educational institutions have implemented the algorithms recommended by the Ministry of Education and Science for creating safety conditions and actions in dangerous situations<sup>246</sup>. Relevant instructions cover evacuation procedures, actions during air alerts, transportation of children, receiving children for learning, and returning them to parents. Similar instructions from state or local authorities may be released untimely or not account for certain typical practical situations, so school leaders have had to adapt them independently, considering their specific circumstances.

Standard, repeatedly tested evacuation algorithms are generally followed. If shelters have enough space and are equipped with desks, teachers continue lessons during alerts. According to research participants, if lessons are conducted online and an air raid alert occurs, teachers stop classes, and students must move to shelters. It is impossible to verify compliance with safety rules during online learning; the school staff is not responsible for students while they are at home.

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<sup>246</sup> MoES (n.d.). Safe educational environment: how should teachers act during classes when the signal “Air alarm” is announced? [In Ukrainian] <https://tinyurl.com/mn8dhhb5d>

**“Almost all colleagues (school directors) had problems with shelters. I cannot say this about us because our lyceum is a former boarding school. Of course, these institutions had entirely different requirements, so our shelter was ready. We felt that parents started to prefer the institution where it was safe. Parents considered whether there was a shelter, whether all permits were obtained, whether it was safe to send their child to study here... Yes, many children transferred from other schools to us”.**  
Oksana Voloshchuk, Director of Zvenyhorodsk Lyceum(‡)

Education takes place under safety risks. Transporting children to educational institutions in other settlements involves the risk of being in an open area during an air raid or shelling. At the same time, there are no shelters along the route, and there are no official instructions for such situations, so buses proceed to their destination where children can enter shelters. Sometimes schools decide to gather children for in-person learning despite the absence or insufficient capacity of shelters.

**“We organized a dining area in the shelter with 40 seats. The catering service that provides us food also operates in the shelter. We broke a 40-centimeter wall between us and them, and they immediately deliver food to the shelter”.**  
Natalia Bortnyk,  
Director of the Private Educational Institution KMDSH(‡)

Victor Mushyn, Director of Chervonodolynsk Lyceum, Shyrokyńska Community (Mykolaiv Region), reported that mine safety training was conducted with students at his school.(‡)

During prolonged air raids, parents sometimes take children out of school shelters despite legal prohibition (see more in Chapter 4).

In general, the main decision-making algorithms for actions during air raid alerts are described in Figure 8.

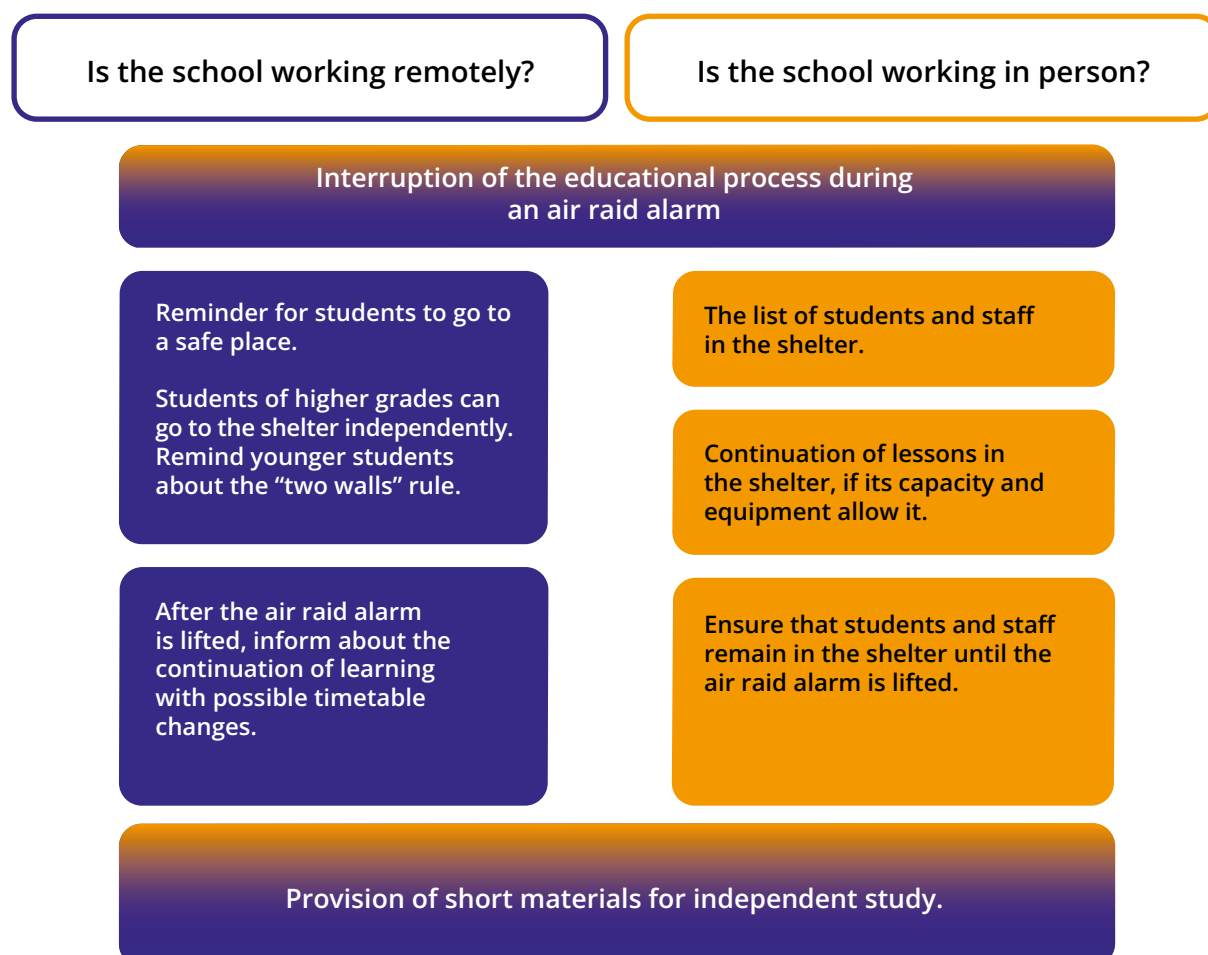


Figure 8. Actions during an Air Raid Alarm

## Learning Losses

Educational institutions operating in different regions and under varying conditions experience different levels of loss of instructional time due to interruptions in the educational process<sup>247</sup>. As a result, the level of learning losses (slowed or low academic progress of a specific student) also varies among them. Table 5 presents the schools' solutions for addressing learning losses.

<sup>247</sup> The State Service of Education Quality of Ukraine. (2023a). Study of the quality of the educational process in the conditions of war in the 2022–2023 academic year. 64 p. [In Ukrainian] <https://cutt.ly/0ezJu2xM>



### Schools' Solutions for Addressing Learning Losses

Conditions in Which the School Operates	Decisions Made by Schools to Address Learning Losses
School in occupied territory	No specific solutions for addressing losses. Educational institutions focus on maintaining the educational process and access to it, especially for students from TOT.
School destroyed, no alternative facilities / access to them impossible	No specific solutions for addressing losses. Some educational institutions have consultation points to compensate for the lack of in-person communication for students.
School partially destroyed or alternative facilities available (another school, modular building)	
School preserved but access limited (due to insufficient shelter capacity or frequent shelling)	Some institutions with sufficiently spacious shelters managed to open a center for addressing learning losses with support from international organizations, such as UNICEF, or join their efforts if such centers are already functioning in their area.
School preserved, located in a relatively safe region, shelter available	Issues related to learning losses, primarily due to alarms and power outages, are addressed through additional consultations, opening and / or joining a center for addressing learning losses based at the educational institution (in some cases).

Participants in all focus groups noted that remote learning negatively affects children's socialization, with significant losses in face-to-face communication.

Students from schools that were or remain under temporary occupation experienced the greatest learning losses. During the occupation, students lost access to Ukrainian education, and after resuming classes, continued their education in a remote format. Frequent air raids and power outages hinder effective remote learning.

#### Zahaltsivskyi Lyceum, Borodyansk Settlement Council, Kyiv Region(‡)

Remote learning leads to significant learning losses and gaps. To address this, transportation was organized by bus for children and teachers to and from the Kachalivka branch for a second shift. The duration of lessons was shortened to "sync" the shifts and relocations. Problems include too short breaks between lessons; teachers' switching between different instruction formats (offline / online) throughout a single school day.

Special attention is also needed for students from destroyed schools. Access to in-person learning is limited, and learning losses are increasing.

Constant power outages pose additional risks of new learning losses during remote studies.

At the same time, for students and teachers who live far from their home cities or towns, maintaining the school community is extremely valuable. It provides psychological support for both adults and children. Therefore, the policy of closing schools located in occupied or frontline areas, which are operating remotely, could cause additional stress for all participants in the educational process.

Schools are trying to divert and / or minimize students' learning losses via different means (see Figure 9).

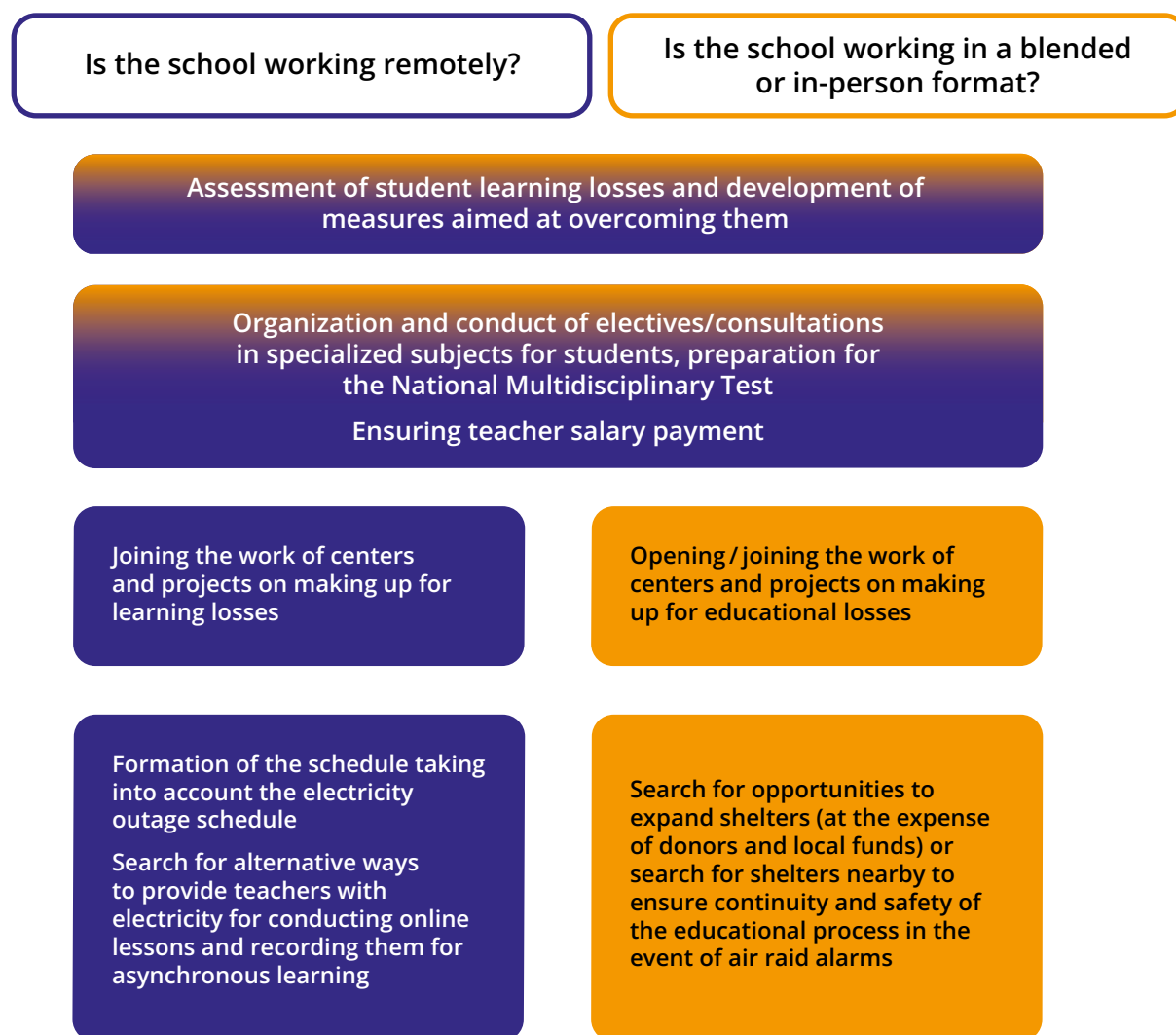


Figure 9. School Solutions for Addressing Student Learning Loss

## Psychological Support Provision

All participants in the educational process have been in a difficult psychological state since the beginning of active military actions in Ukraine, experiencing stress, anxiety, and the effects of psychological trauma.

**"There are children who no longer perceive others as they once did. There is a boy with a persecution complex. The problem is that we are not used to treating our mental health. Parents are not ready to admit that something is wrong with their child. Going to a psychologist as one would to a doctor is very difficult".**

Ludmila Deiko, Director of Bohdanivska Gymnasium(‡)

All study participants confirmed that for students, resuming learning was primarily a powerful means of psychological support.

**"The first lessons were psychological support for students. Each teacher dedicated five to ten minutes to the psychological state of each child... The eyes, full of fear, were present in everyone..."**

Diana Savchenko, Director of Globe International Lyceum(‡)

School principals consider providing psychological support a priority in the educational process. Many teachers have undergone trainings on psychological / emotional support for students, recognition of psychological stress signs, and providing initial psychological aid. Such trainings are conducted by Institutes for Postgraduate Pedagogical Education<sup>248</sup> as well as international projects and charitable organizations (such as the "Safe Space. Comprehensive Psychosocial Support for Ukrainian Schools in War Conditions" project, the nationwide mental health program "How Are You?", the East SOS project, Safe Space, etc.). School directors consider such trainings a significant support for them.

### **Experience of Mariupol Lyceum, Kyiv**

**The lyceum has a staff psychologist who works according to their plan. A distinctive feature of the lyceum is the "Understanding" support service, created with the help of the "La Strada" organization.**

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<sup>248</sup> These are public-funded educational institutions present in every oblast (region) of Ukraine.

**The service, led by a psychologist, is operated by the students themselves. The main task of the service is to prevent bullying, but additionally, the students provide each other with emotional support. Mutual support among teachers is a very powerful resource for psychological help. The lyceum also practices conducting training for teachers by psychologists from educational projects and charitable organizations (such as savED).**

No significant difference was found in the mechanisms for providing psychological assistance between schools in different regions and security conditions, although there are more opportunities for organizing it in institutions operating in-person, e.g. creating opportunities for in-person meetings in safety classrooms and providing various types of emotional therapy: art therapy, hippotherapy, etc. Most educational institutions provide psychological assistance through school psychologists, but they cannot meet all requests and organize systematic work with children and teachers, so they mostly work on individual requests from parents or teachers who identify psychological problems in students.

#### **Psychological Support in Kharkiv(‡)**

**In Kharkiv, a city center for psychological support has been established. A group of psychologists at the center oversees the psychological services of all city schools and ensures a unified protocol approach to providing psychological assistance. The psychologists have received training in providing psychological help to people in stressful conditions in Israel, as well as through psychological training programs within UNICEF and USAID projects.**

According to the participants in our study, the overwhelming majority of participants in the educational process currently need psychological support (Figure 10).

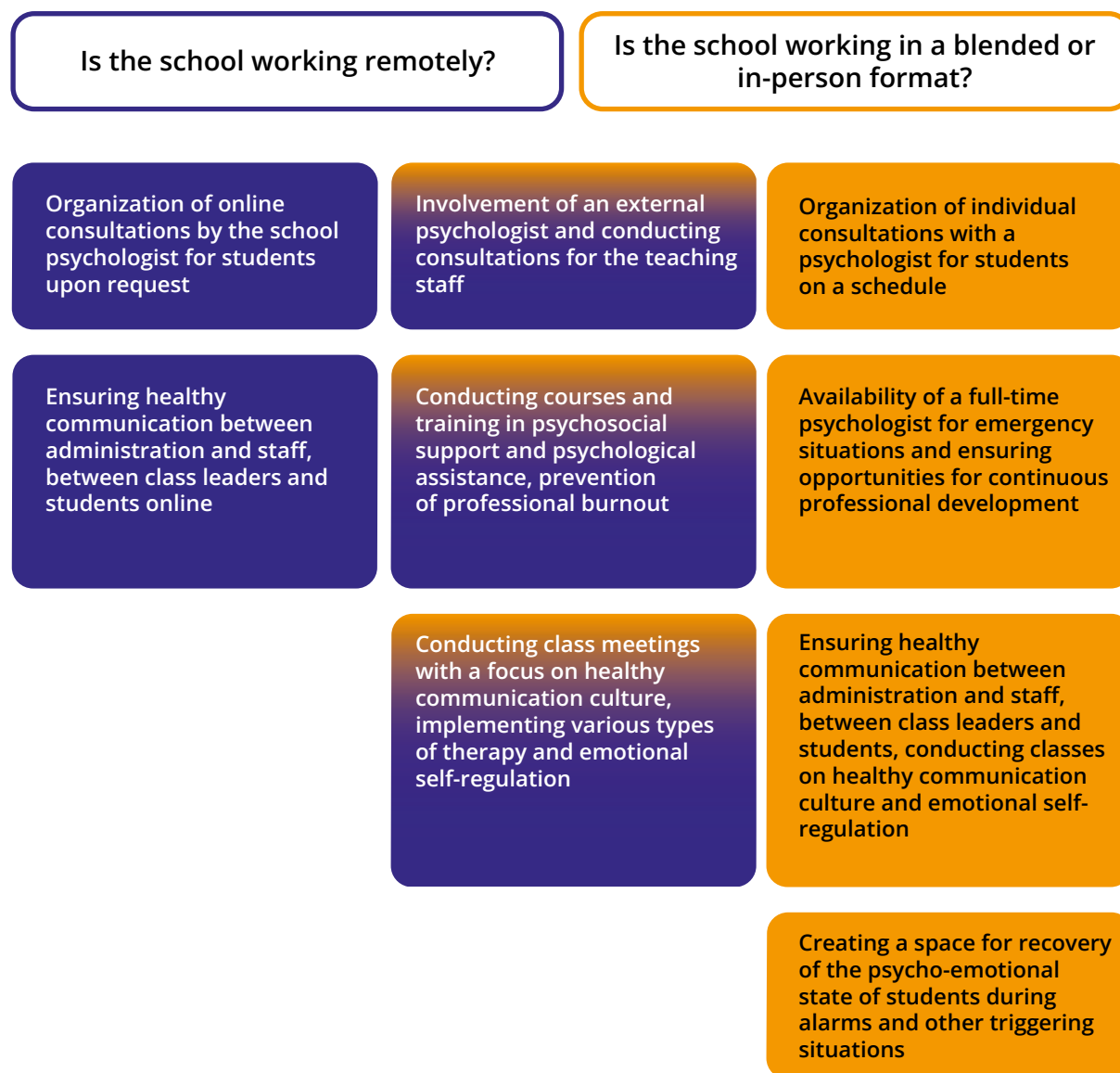


Figure 10. Forms of Psychological Support for Participants in the Educational Process

## Work with Internally Displaced Persons

Internally displaced children are mostly students from schools located in occupied or liberated territories, as well as those whose houses have been damaged.

**“Over two years of full-scale war, the staff has already become familiar with their students and their reactions. The school has internally displaced students who have experienced terrible events and sometimes suffer from panic attacks. For this, there are separate rooms in the shelter where a psychologist, a medical worker, and a homeroom teacher can work with them.”**

Oksana Voloshchuk, Director of Zvenyhorod Lyceum(‡)

Most of the schools participating in our study have students with IDP (Internally Displaced Person) status. Schools located in eastern and southern regions have students displaced from occupied territories or conflict zones.

#### **Experience of Volodymyrskyi Lyceum “Collegium” (§)**

**The institution was designated as a support center for children from temporarily occupied territories. This led to simultaneous online and offline lessons, with students participating in online learning alongside in-person classes.**

Schools in central and western regions of Ukraine have a larger share of IDP students. Directors of some schools note that the presence of a shelter and in-person learning influences parents' school choice. In the schools we communicated with, special adaptation programs for IDP students are not provided, and additional work is not conducted. However, some school principals report that displaced children and their parents are actively involved in extracurricular activities, competitions, volunteering, etc. (see Figure 11).

**A psychologist works with IDP students. Working with IDP parents presents certain challenges. IDP families are involved in organizing school events, actively participate in volunteering, which promotes the socialization of both parents and students, and better integration into society and school life.**

**“A very important aspect that brings children and parents closer together is volunteering... Even at the beginning [of the full-scale invasion in 2022], we were making nets<sup>249</sup>, and when parents from Ternopil and other [regions] came, they interacted, and this brings them much closer than any parent meetings. They search, find common contacts, exchange recipes, and then treat each other and start visiting each other.”**

**Andrii Hazylyshyn, Director of Ternopil Secondary School No. 10 (§)**

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<sup>249</sup> Large handmade nets used to camouflage the military equipment of the Armed Forces of Ukraine.



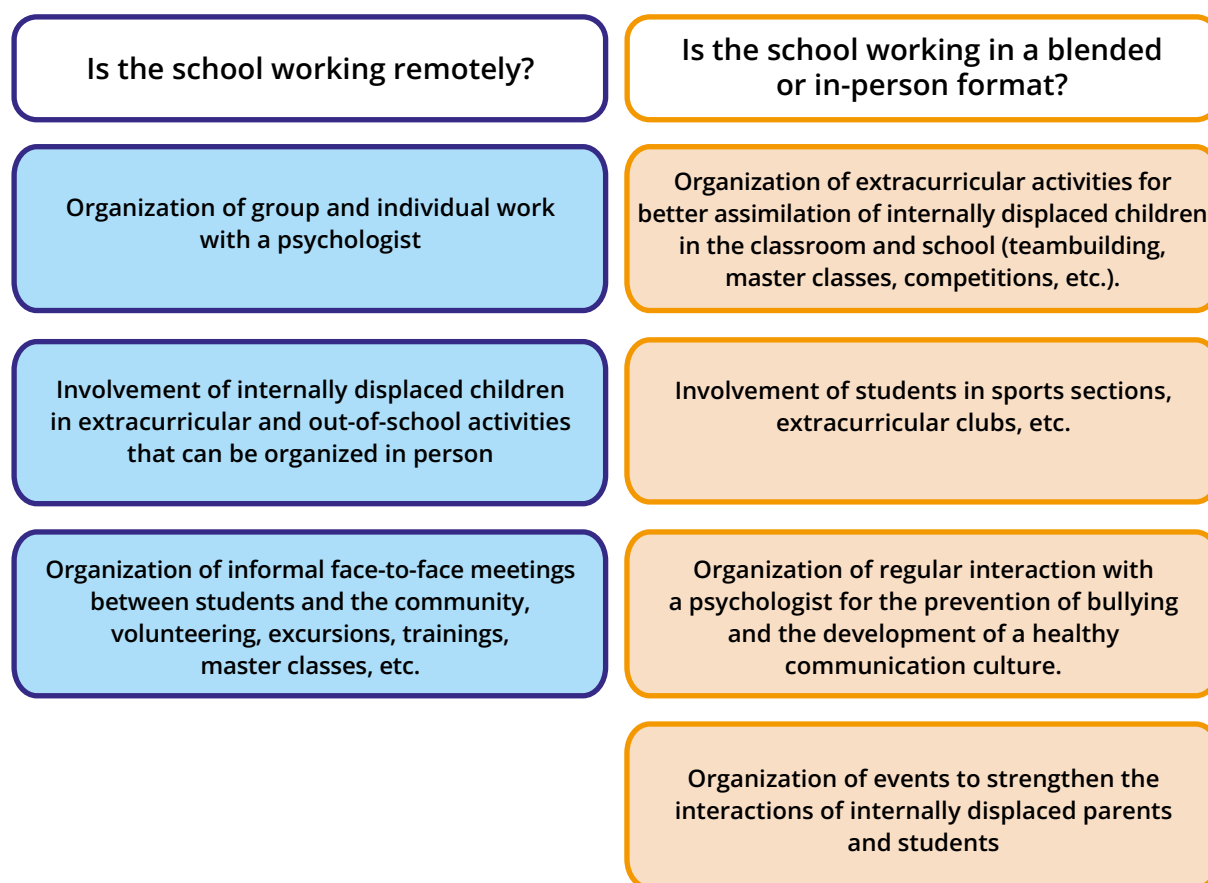


Figure 11. Schools' Initiatives for Adapting IDP Students

## Work with Students Abroad

Students studying abroad are present in all schools participating in this study. Schools in eastern and southern regions have a higher number of such students. If the situation in the region becomes safer, some students return from abroad.

Students abroad primarily pursue education through family and external forms of learning, while also attending schools in the host country. There are cases of students studying remotely, including in remote learning classes and schools.

### Experience of Optima Remote School(†)

The war has necessitated the development of new educational packages. For example, "We are from Ukraine" is a package of Ukrainian studies components for students abroad. Some subjects [studied abroad] are automatically credited to students. The curricula have not been shortened, as studies on the platform have continued, so there have been no actual learning losses. The platform also includes an interactive external evaluation system (tests have been developed for all subjects and grades).

If a school operates remotely or in a blended format, students can join the remote studies and work with materials on the remote platform. Typically, students cannot join synchronous classes in Ukraine due to their lessons at the school abroad. In such cases, displaced schools adjust their main class timetables to a second shift to accommodate the students from abroad. Some schools' teachers conduct separate consultations for children in the evenings or on weekends.

**"The children who are currently abroad are roughly divided into several categories. The first category is the 'umbilical cord' yet uncut, and it is unclear where they will go; the second category is those who do not envision their future abroad; and the third category is those who have already integrated into the education system of the countries where they are studying and are somewhat negligent about their studies in Ukraine."**

Oksana Proskura, Director of Eastern Languages Gymnasium No. 1(‡)

For students from destroyed educational institutions with alternative premises, individual consultations are conducted online as needed or according to a schedule.

In educational institutions that operate in person, students abroad study in separate remote classes (if the number of students allows for such a class) or through family or external education forms. There is a practice of developing separate remote courses for studying Ukrainian studies components in remote schools.

**"To allow children abroad, who are studying in other schools, to join lessons, the lyceum shifts to a second shift. Lessons start at noon. The first lessons are non-core subjects. From 3 p.m., profile subjects begin.**

**Children abroad join the learning process but attend Ukrainian studies components and profile subjects. Individual educational trajectories are developed for them."**

Andrii Holutyak, Director of Mariupol Lyceum, Kyiv(‡)

Study participants noted that simultaneous learning in two schools is very exhausting for students, especially those who study subjects remotely in Ukrainian schools during the second shift. Based on the analysis of participants' practices, we identified three main trajectories for organizing education for students abroad (see Figure 12).

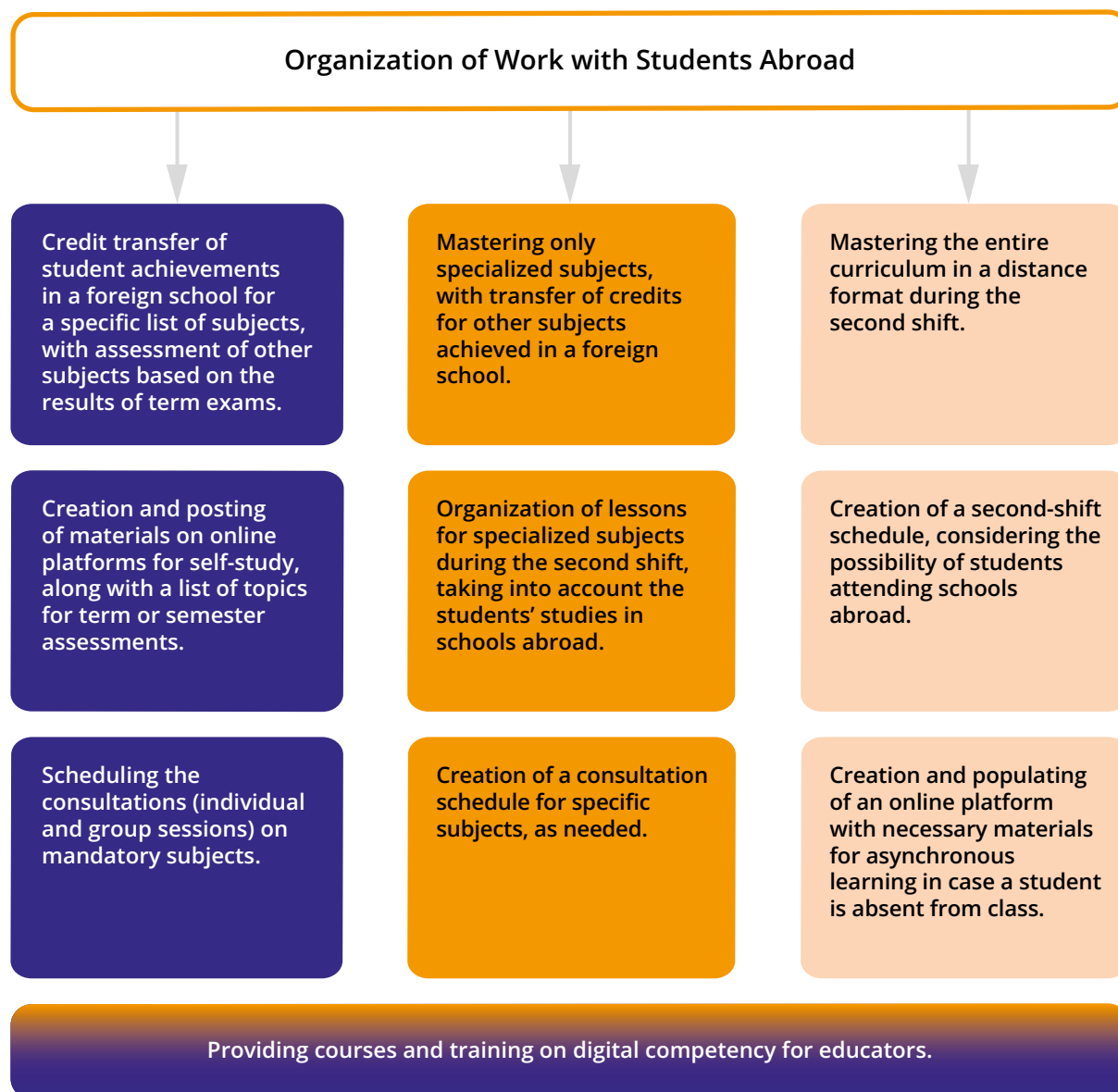


Figure 12. Approaches to the organization of studies for students who are abroad

## CHAPTER 6. MODELS OF ORGANIZING THE EDUCATIONAL PROCESS IN UKRAINIAN SCHOOLS DURING THE WAR

Ukrainian schools operate under one of three learning formats during the war: in-person, remote, or hybrid (a combination of in-person and remote learning). Additionally, Ukrainian legislation allows students to study through an individual learning format.<sup>250</sup>

The Ministry of Education and Science has allowed institutions to choose the form of learning based on the security situation in the region and the availability of shelters.<sup>251</sup>

Over the two years of full-scale war, trends in educational formats have changed significantly. While in the spring of 2022, the majority of schools (95 %<sup>252</sup>) resumed education in a remote format, in the 2023 / 2024 academic year, most schools in Ukraine switched to in-person learning (53 %), 28 % operated in a hybrid format, and 19 % continued with remote learning<sup>253</sup>.

It is evident that despite the ongoing danger to participants in the educational process, educational institutions are returning to in-person learning where conditions allow. However, this form of learning remains inaccessible for a significant number of Ukrainians. Therefore, we will focus more closely on alternative forms.

### Remote Learning

Remote learning encompasses various forms of educational processes where the teacher and students are not physically in the same room<sup>254</sup>. The first mass transition to remote learning occurred in schools in 2020, at the beginning of the COVID-19 pandemic. Over the two years, schools gained experience in organizing such learning: electronic materials were created and placed on online platforms; teachers mastered information and communication technologies; and students learned to work independently. This experience proved invaluable at the onset of the full-scale invasion and allowed for a rapid restoration of the educational process in nearly all schools.

In a study of the war's impact on Ukraine conducted by the CEDOS think tank in collaboration with the savED fund, parents of students noted a drawback of remote education: children studying remotely generally have more homework than those studying in-person

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<sup>250</sup> Regulations on the individual form of obtaining a complete general secondary education: approved. by order of the Ministry of Education and Science of Ukraine No. 8 (2016). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/z0184-16>

<sup>251</sup> Letter of the Ministry of Education and Science of Ukraine "On the organization of the 2023/2024 academic year in institutions of general secondary education" No. 1/12186-23 (2023). [In Ukrainian] <https://tinyurl.com/325h5pc3>

<sup>252</sup> Institute of Educational Analytics. (2022). Assessment of Ukraine's needs in the field of education (May 6 – June 24, 2022). Final report. [In Ukrainian] <https://tinyurl.com/mr2bxef2>

<sup>253</sup> The State Service of Education Quality of Ukraine. (2024). Study of the quality of the organization of the educational process in the conditions of war in the 2023/2024 academic year. [In Ukrainian] <https://tinyurl.com/48ufk2df>

<sup>254</sup> TechSmith. (2022). What is Distance Learning? The Complete Guide. <https://www.techsmith.com/blog/distance-learning/>

or in a hybrid format. 17 % of parents of remotely learning children reported that their kids spend more than five hours daily on additional home learning, apart from attending lessons<sup>255</sup>.

The State Service for Quality of Education in Ukraine conducts an annual monitoring study of the quality of remote learning in Ukraine.

The study conducted in the first year of full-scale war (2022 / 2023 academic year) revealed that the quality of organizing the educational process was insufficient. In synchronous remote learning conditions, fewer than one-third of teachers used interactive methods involving student interaction, such as group work, pair work, practice and laboratory work. Meanwhile, most teachers in both synchronous and asynchronous remote learning environments asked students to review presentations, videos, complete exercises, and work independently, though 39 % of teachers viewed students' inability to learn independently as a challenge in the wartime educational process. Most teachers acknowledged learning losses in students across many subjects, with the greatest loss being the absence of "live communication" (reported by 71 % of teachers).<sup>256</sup>

In the 2023 / 2024 academic year, a follow-up cycle of the study was conducted. At this time, a significant number of students returned to in-person learning. Teachers believe this transition was accompanied by adaptation difficulties, and many students needed psycho-emotional support. The study found that during remote learning, educators used fewer active and interactive teaching methods compared to in-person learning. Despite the transition to in-person learning in many schools, teachers noted that students' results had deteriorated in some subjects.<sup>257</sup>

Despite certain drawbacks of remote learning, in wartime, this model remains the only way to ensure access to education for children in regions along the line of demarcation, frontline areas, and occupied territories.

## Blended Learning

The Ukrainian legislation has no specific norms for blended learning. In practice, blended learning combines in-person and remote learning formats. "Such a combination is possible for various types of activities, for example, practices and labs are conducted in-person, while lectures are delivered remotely<sup>258</sup>".

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<sup>255</sup> Kogut, I., Nikulina, O., Syrbu, O., Zheryobkina, T., & Nazarenko, Yu. (2023). War and Education: How a Year of Full-Scale Invasion Affected Ukrainian Schools. CEDOS, savED. P. 54. [In Ukrainian] <https://cutt.ly/eezjcd3E>

<sup>256</sup> The State Service of Education Quality of Ukraine. (2023). Study of the quality of the organization of the educational process in the conditions of war in the 2022/2023 academic year. [In Ukrainian] <https://sqe.gov.ua/wp-content/uploads/2023/04/yakist-osvity-v-umovah-viyny-web-3.pdf>

<sup>257</sup> The State Service of Education Quality of Ukraine. (2024). Op. cit.

<sup>258</sup> MoES letter No. 1/12186-23 (2023). [In Ukrainian]



Based on previous research,<sup>259</sup> several key models of blended learning can be identified in Ukrainian educational institutions: rotational, flexible, personalized, and enriched virtual environment.

The rotational model involves rotating students within the school. It may also include rotating types of student activities, such as working with electronic resources, interactive online interactions, creating presentations, and conducting research. A variation of rotation is alternating between classroom learning and learning through remote technologies. This model is implemented by most schools in Ukraine that have chosen a blended learning format.

The flexible model involves students alternating between online and offline activities, working synchronously and asynchronously according to an adapted schedule. The schedule is designed for the chosen technology for studying a subject and can be flexible, allowing transitions between different learning modes. The teacher's role is multifaceted: they teach, instruct, coordinate student activities, and provide consultations. Some schools in Ukraine implemented this model at the beginning of adapting to wartime conditions but noted that it is quite complex to organize.

The personalized model allows learning through individual educational trajectories by using remote technologies and digital resources. It can be used with individual learning formats, in a combination of in-person and external education, or to implement an individualized approach during in-person learning, such as for in-depth study of specific subjects.

The enriched virtual environment model involves student work mainly with digital resources in a virtual environment. This may include working on online platforms with remote courses. This activity is generally conducted in a "student — digital device" mode. Using this model may lead to a communication deficiency, so forms of interaction, such as attending specific lessons (if this model is applied individually) or organizing events where students gather (e.g., presentations and project defenses), are chosen. In this case, "enrichment" refers to situations of face-to-face interaction among students.

## Individual Learning

Personalization of children's education and the possibility to choose their own developmental trajectory is one of the key ideas of the "New Ukrainian School" reform, which began in 2017. To implement this possibility, education is provided through one of the individual forms (external studies, family / home education, pedagogical patronage) or an individual educational trajectory without transitioning to an individual education form<sup>260</sup>.

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<sup>259</sup> Bart, M. (2012). Blended learning course design creates new opportunities for learning. <https://tinyurl.com/ymipdjum>; Dziuban, C. D., Hartman, J. L., & Moskal, P. D. (2004). Blended Learning. *Research Bulletin*. Issue 7. Educause Center for Applied Research. <https://tinyurl.com/3xkwtwnt>; Greenberg, B., Schwartz, R., & Horn, M. (n.d.). Blended Learning: Personalizing education for students. *Coursera*. <https://www.coursera.org/learn/blending-learning-personalization>; Kuharenko, V. M., Berezenska, S. M., Bugaichuk, K. L., and others. Theory and practice of blended learning: monograph. Kharkiv, Myskdruk, NTU "KhPI", 2016. 284 p.; Shelestova, L. V. (2021). Blended learning in primary school: methodical recommendations. Kyiv, Phoenix, 48 p.; Linnik, O. O. (2023). Blended learning as a strategy for adapting the educational process at school to the war. *Pedagogical education: theory and practice. Psychology. Pedagogy*. No. 39. P. 25–32. [In Ukrainian] [http://nbuv.gov.ua/UJRN/Potip\\_2023\\_39\\_6](http://nbuv.gov.ua/UJRN/Potip_2023_39_6)

<sup>260</sup> Regulations on the individual form of obtaining a complete general secondary education. Approval by order of the Ministry of Education and Science of Ukraine No. 8 (2016). [In Ukrainian] <https://zakon.rada.gov.ua/laws/show/z0184-16>

External studies involve the student studying one or more subjects independently. Teachers create an individual plan for the student, provide a minimal number of consultations throughout the year, and organize annual assessment of learning achievements. Enrollment in external studies requires justification (studying abroad is one such reason)<sup>261</sup>.

Family (home) education involves parents organizing their children's education independently. Unlike external studies, this form involves more consultations and assessment of students' learning results twice a year. Enrollment is possible for all categories of students without restrictions based on parents' applications<sup>262</sup>.

Pedagogical patronage is the only individual form that involves teacher support and systematic home education but is applicable only to certain categories of children, mainly those with disabilities<sup>263</sup>.

According to the State Service for Quality of Education of Ukraine, the number of students in individual education forms has increased due to the full-scale war. These changes are most significant in the East and South of the country, where about 40 % and 30 % of students, respectively, were forced to move abroad or to other regions of the country.

From 2021 (before the full-scale Russian invasion) to 2023, the number of students in external studies increased from 11,346 to 51,740 (almost fivefold), in family education from 4,695 to 91,986 (almost twentyfold). In contrast, the number of students in pedagogical patronage decreased nearly twofold, from 40,867 to 23,719<sup>264</sup>. Pedagogical patronage is not available for children who have moved abroad.

Researchers have paid almost no attention to individual learning during the war. However, the significant number of students receiving education in this form indicates the need for separate research on individual learning models used in schools for organizing the educational process.

## Models of Learning in Ukrainian Schools During the War

We have collected and analyzed practical cases of school operations via our focus group research and in-depth interviews, which allows us to characterize models of the educational process created within the frameworks of in-person, remote, blended, and individual learning forms. These models are quite diverse in terms of organizing the educational process, mostly determined by security conditions and the location of the learners. To describe the methods of organizing the educational process within different learning forms, we used the term "model", as it involves schematic descriptions that can potentially be replicated under similar conditions.

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<sup>261</sup> Ibid. Section II.

<sup>262</sup> Ibid. Section III.

<sup>263</sup> Ibid Section IV.

<sup>264</sup> The State Service of Education Quality of Ukraine. (2024). Op. cit.

## 1. In-Person Learning

**Characteristics:** Students attend daily classes according to a fixed schedule in the school premises. In the event of air raids, the educational process continues in designated shelters. The institution has developed clear action algorithms for teachers and students in case of dangerous situations.

**Usage Conditions:** Relatively safe conditions in the region, absence of frequent shelling, distance from the front line, preserved premises. The shelter accommodates all children and teachers and is equipped for the educational process. Clear algorithms for actions during alarms, power outages, and other dangerous situations are in place.

**Advantages:** Access to quality education, learning losses prevention, socialization, and psychological support for students.

**Disadvantages:** Risks associated with the possibility of shelling during the educational process.

**Examples:** “Hub School” (Vinnytsia), Zhytomyr Private Christian Lyceum “Shining”, Private Educational Institution “KMDSH” in Kyiv, Zvenyhorodka Lyceum in Cherkasy Oblast, Novovolynsk Lyceum No. 8 in Volyn Oblast, Yavoriv Lyceum named after Osyp Makovey in Lviv Oblast, Chernivtsi Lyceum No. 1 with Mathematics and Economics profiles, Chop Secondary School No. 1 in Zakarpattia Oblast, and others.

### Zvenyhorodka Lyceum, Cherkasy Oblast

“From the first day after the holidays, the institution began operating in-person, as the capacity of the shelter allowed accommodating students, teachers, and all support staff (technical workers) in case of an alert. Initially, parents were skeptical about in-person learning, so it was not possible to bring all classes to in-person learning. The first students to return were from grades 1, 5, and 11. Later, all students returned to in-person learning.”

Oksana Voloshchuk, Director of the Lyceum(‡)

### “Hub School”, Vinnytsia

“For the children, offline learning was like a lifeline. They came, and we were in school for as long as they needed. Because they played (we had a shelter), they engaged in activities, sang, had their own conversations, games. We did not interfere, but we supported them. And it also saved the students’ emotional state.”

Yulia Shakula, School Director(‡)

## 2. Distance Learning

### 2.1. Synchronous Model

**Characteristics:** Remote live learning using distance technologies. Students are enrolled in classes for in-person learning but use distance technologies for their education. The schedule remains the same as in traditional in-person learning. The number of classes does not decrease, though some lessons may be conducted asynchronously (particularly during air raids).

**Usage Conditions:** This model is used in dangerous regions where access to the school is restricted (e.g., the school building is fully or partially destroyed; the school is near the front line and under shelling). It is also applied in schools from occupied territories where teachers have been evacuated but lack their own premises. Students must have access to gadgets.

**Advantages:** Enables the organization of educational processes when physical access to the school is not possible. All allocated learning time is spent under the guidance of teachers (except during air raids and power outages).

**Disadvantages:** Lack of live communication between students and teachers; risks of disruption due to power outages and air raids; non-compliance with sanitary requirements regarding maximum computer use duration.

**Examples(‡):** Multi-Profile Lyceum in Severodonetsk, Luhansk region; distance classes at Eastern Languages Gymnasium No. 1.

**“The Multi-Profile Lyceum is not just walls; it’s the people who are genuinely dedicated to their work. So the only thing that changed was the absence of the building, the inability to be physically present, but everything else remains the same. Our main task is to create conditions for everyone who wants to receive quality Ukrainian education.”**

Victoria Kiyashko, Director of Multi-Profile Lyceum in Severodonetsk, Luhansk region(‡)

### 2.2. Asynchronous Model

**Characteristics:** Students study on a distance learning platform at their own pace using specially developed (adapted) electronic educational resources. Materials are step-by-step with integrated feedback. Teacher consultations are provided as needed.

**Usage Conditions:** Suitable for students who are abroad, frequently moving within Ukraine, or prefer to learn at their own pace. Can also be used for students in occupied territories.

**Advantages:** Well-developed learning system; content designed for self-paced learning (video materials, interactive tasks, structured step-by-step materials); ability to reach a large number of students regardless of their location; creation of adapted courses for

different categories of students with varying learning losses levels; possibility of quick assessment of students' learning results based on defined criteria.

**Disadvantages:** Lack of live communication; significant costs for creating and fully populating the distance platform with educational content; need to change teaching methods; cheating risks.

**Example:** Distance School "Optima School".

### 2.3. Synchronous-Asynchronous Model

**Characteristics:** Students are enrolled in distance learning and follow curricula adapted for distance education. The distance learning methodology includes students mastering part of the material independently using organized electronic resources on the platform.

**Usage Conditions:** Same as for synchronous and asynchronous distance learning models. In practice, this model is also applied during remote learning.

**Advantages:** Creation of separate distance classes allows teachers to ease their workload (not duplicating functions for different learning formats); development of learning plans with allocated hours for synchronous and asynchronous modes; rationally structured learning programs adapted for independent study of specific topics.

**Disadvantages:** Reduction in actual learning time; students study part of the material independently, which negatively impacts learning outcomes; students experience a lack of live communication.

**Examples:** Distance center of Lyceum No. 4 in Zhytomyr, Natalinsky Lyceum in Kharkiv region, Novovorontsovka Lyceum in Kherson region, Novogrodivka Support School No. 7 in Donetsk region.

## 3. Blended Learning

### 3.1. Rotational Model of Blended Learning

**Characteristics:** Classes rotate for in-person learning according to a specific schedule (weekly / biweekly / triweekly; two or three days a week). There are many variations depending on the capacity of the shelter: classes are held with as many students as the shelter can accommodate. The timetable is fixed, with students attending in-person on certain days and remotely on others.

**Usage Conditions:** Relatively safe conditions in the region; intact school premises; shelter that accommodates only part of the students; parental consent for this learning format. This model is the most popular among participants in our study.

**Advantages:** Allows for at least a part-time in-person learning and direct communications for all classes.

**Disadvantages:** Complexity in organizing the educational process; risk of teacher burnout due to overload; academic misconduct risks.

**Examples:** Novobykivsk Secondary School in Chernihiv region, Odesa Lyceum No. 81; Solonensky Lyceum "Leader" in Zaporizhzhia region, Pereyaslav Lyceum in Kyiv region, and others.



### 3.2. Flexible Model of Blended Learning

**Characteristics:** Similar to the rotational model, classes attend the school in rotation. The pedagogical council makes decisions about flexible planning of the educational process. Some subjects are designated for in-person only, others for remote only. There may be fully in-person and fully remote days, or parts of a day may be in-person while others are remote. This model is more complex than the rotational model, requiring timetable adaptation for simultaneous in-person / remote or synchronous / asynchronous learning, and meticulous logistical planning (student movement, teacher schedules).

**Usage Conditions:** Shelter does not accommodate all students for in-person learning; demand from parents / students for increased in-person learning.

**Advantages:** Flexible approach to the educational process; in-person study of some subjects (mainly sciences, mathematics, languages); opportunities for live communication among students, provisions for their socialization and development of soft skills.

**Disadvantages:** Complex organization of the educational process and teacher schedules; risk of distinguishing between important and secondary subjects; overload for students and teachers if both in-person and remote learning occur on the same day.

**Examples:** Romaniv Lyceum No. 1 in Zhytomyr region, Mykhailo-Kotsiubynskyi Lyceum in Chernihiv region, Bohdanivka Gymnasium in Kyiv region (in 2022 / 2023 academic year), Eastern Languages Gymnasium No. 1 in Kyiv (in 2022 / 2023 academic year), Zahalstiv Lyceum in Kyiv region (in 2022 / 2023 academic year), Boromlya Village Council Lyceum in Sumy region.

Some institutions had this format of learning but abandoned it due to the complexity of organizing the educational process.

#### Example of Schedule Planning Using the Flexible Model at Eastern Languages Gymnasium No. 1 in Kyiv (2022 / 2023 Academic Year)

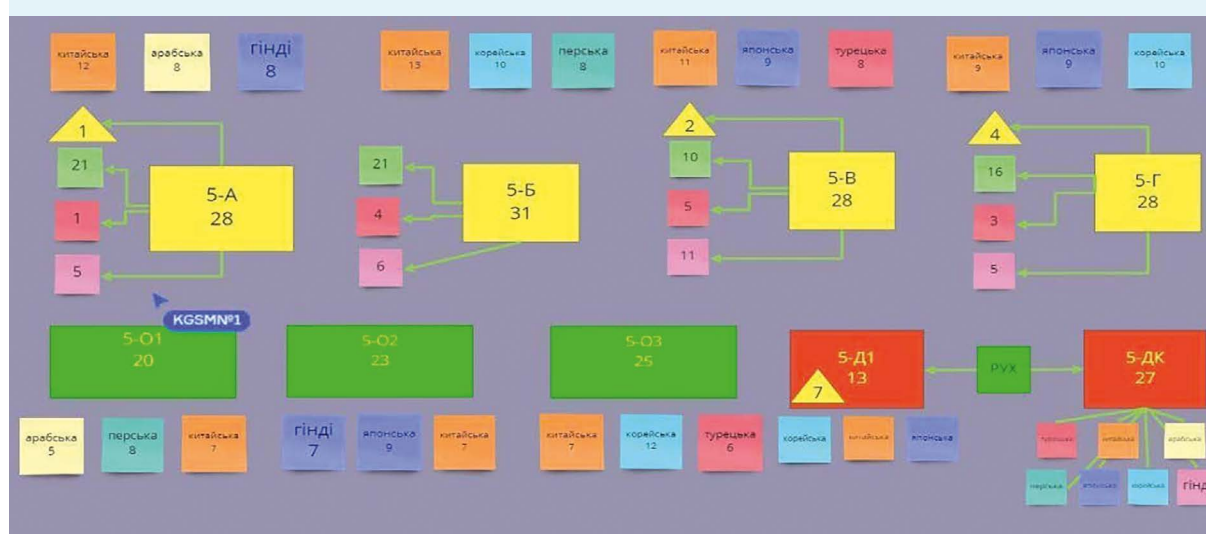
The schedule was structured to accommodate two shifts: morning in-person learning at the school and remote learning for students within Ukraine, with remote learning starting from 15:30 for children abroad.

The complexity of organizing the educational process lay in dividing each class into three or four sub-groups for studying various Eastern languages. Some students chose blended learning, some chose only remote learning, and some followed individual educational trajectories. Additionally, some classes studied remotely within Ukraine, while others studied abroad.

Therefore, the school decided to create four temporary inter-class groups, combining students according to the languages they studied and the forms of learning they chose. For those in in-person learning, dynamic inter-class groups were organized in the school, with internal rotation of students between classes, while other classes in parallel studied remotely.

The diagram shows the rotation scheme of students (dynamic inter-class groups). The top row indicates the number of students studying each

Eastern language. The second row uses different colored shapes to show the distribution of students by learning formats (green for blended rotation model, beetroot for remote learning in Ukraine, pink for remote learning abroad, yellow triangle for students with individual educational trajectories). The third row denotes temporary dynamic classes: o1, o2, o3 — in-person classes (blended learning according to the flexible model), DI — remote learning in Ukraine + students with individual educational trajectories, DK — students studying abroad. For Eastern language study, students from remote classes in Ukraine were combined with those studying from abroad. The schedule was divided into even and odd weeks and remained fixed by subjects. Lessons were conducted in-person or remotely, depending on the



learning format adopted for each temporary class.

Oksana Proskura, Director of Eastern Languages Gymnasium No. 1 in Kyiv, noted during the interview that this scheme was used for one academic year and was very complex to organize. However, it allowed solving the main task — grouping students for studying Eastern languages. After a year, the school abandoned this organizational model due to its complexity and teacher exhaustion, who were effectively working in three shifts.

### 3.3. Enriched Virtual Environment Model

**Characteristics:** Education and other student activities are primarily conducted remotely in a virtual space. Enrichment occurs through in-person meetings for socialization.

**Usage Conditions:** This model is used when the school building is destroyed, there is a modular building, a digital education center (see Chapter 7), or several classrooms in another school that can physically accommodate only a small number of students. In such cases, students come for in-person classes mainly for communication, discussions, and events.

**Advantages:** Facilitates student communication when other opportunities are limited.

**Disadvantages:** Limited time availability for in-person classes for each group; safety risks due to lack of fully equipped shelter in temporary or modular accommodation; most study time gets spent on self-directed work with digital resources.

**Examples:** Apostolivskyi Lyceum No. 3 in Dnipropetrovsk Oblast, Chervonodolyński Lyceum in Mykolaiv Oblast.

#### **Apostolivskyi Lyceum No. 3 in Dnipropetrovsk Oblast**

The lyceum building was completely destroyed. The other two lyceums in the city are partially ruined. Only one of the institutions has a portion of its premises intact, suitable for teaching.

The lyceum was temporarily provided with space in a kindergarten and two classrooms in Lyceum No. 1. One of the rooms is used by teachers, and the other (just one room) can be used for teaching students.

The shelter can accommodate 50 students, so the three lyceums, which all rotationally use the only surviving lyceum building, have created a schedule for in-person classes. On any given day, only two classes can attend.

Teachers periodically gather students in the designated area to ensure they can interact with each other.

### **3.4. Synchronous Learning Model in In-Person and Remote Formats**

**Characteristics:** Students learn simultaneously in-person (in the classroom) and remotely (joining via an online meeting application).

**Usage Conditions:** For schools where some students learn remotely and others learn in-person; students must be able to join lessons synchronously; established methodology for conducting lessons; adapted equipment: speakers, omnidirectional microphone, interactive whiteboard, high-quality camera.

**Advantages:** No double workload for the teacher; online and offline students can communicate with each other.

**Disadvantages:** Difficulty in managing the educational process during lessons; engaging online students in the offline process, sound issues, and challenges for such students to fully perceive what is happening in the classroom.

**Examples:** Volodymyrets Lyceum “Collegium” in Volodymyrets Settlement Council, Mariupol Lyceum in Kyiv.

Some institutions used this model at a certain stage but abandoned it due to implementation difficulties.

## Educational system of Mariupol Lyceum in Kyiv

The lyceum found itself in a situation where part of the students could be gathered in Kyiv, another part is in temporarily occupied territories, and some are abroad, studying simultaneously in other educational institutions.

Therefore, it was decided to use the synchronous blended learning model. Classes at the lyceum start in the afternoon to allow students abroad to join. Additionally, individual learning trajectories are used for children abroad.

The synchronous blended learning model involves conducting lessons in a blended format: half of the class online, and half offline. The methodology involves actively including online students in the in-person lesson.

“10 children on the screen, 15 children in the classroom, and that’s how the lesson proceeds. I call on Mykola from the class, and then Anya from the online screen. Everyone answers, and they all listen to each other.”

— Andriy Holutyak, Director of Mariupol Lyceum in Kyiv(‡)

## 4. Individual Learning

This section does not reflect pedagogical patronage as one of the forms of individual learning. Respondents in our study did not detail learning models associated with pedagogical patronage.

### 4.1. Learning in Individual Forms of Education

**Characteristics:** Students are enrolled in individual forms of education (external studies, family / home education). This form involves providing consultations several times a year for each subject and conducting assessments twice a year (for family / home education) or at the end of the school year (for external studies). Throughout the year, students typically follow an individual plan. Schools also provide students access to all materials posted on the remote learning platform.

**Usage Conditions:** Applied to students who are abroad, studying there but want to stay connected with a Ukrainian school, as they plan to return to Ukraine. The model can also be used for students in temporarily occupied territories; for students in Ukraine who have reasons to choose this form of education (e.g., inability to participate fully in the educational process, lack of remote learning options at the school, etc.).

**Advantages:** Flexible learning schedule; ability to combine learning in Ukrainian and foreign schools; typically follows an individual work plan.

**Disadvantages:** Minimal consultation from teachers; learning either independently or with the help of parents (private tutors); learning throughout the year without systematic feedback; risk of declining education quality.

**Examples:** Almost all schools participating in the study had students in family and / or external study forms.

**“In some grades, online classes were not opened due to a lack of students. Such students transitioned to family education. Their learning involves consultations provided by teachers in the afternoon. These consultations occur daily according to a schedule.”**

Oksana Proskura, Director of Eastern Languages Gymnasium No. 1(§)

#### **4.2. Learning via Individual Educational Trajectories**

**Characteristics:** Applied individually to students in any other learning model. Students are enrolled in a class but attend lessons in the format organized for them when possible. Such learners primarily work with materials on the remote platform, but assessments are generally conducted with the entire class.

**Usage Conditions:** For students in temporarily occupied territories; students abroad who wish to stay connected with their school and have the ability and desire to engage more in the educational process. Another use case: students in schools operating remotely or in a blended format, but parents do not agree to send the student to school for safety reasons.

**Advantages:** Flexible approach to organizing the educational process. Compared to individual education forms, greater involvement in the educational process, access to all educational materials and teacher consultations.

**Disadvantages:** Inconsistent pedagogical support; need to self-learn most of the material; lack of live communication.

**Examples:** Eastern Languages Gymnasium No. 1 in Kyiv, Mariupol Lyceum in Kyiv, Apostolivskyi Lyceum No. 3 in Dnipropetrovsk Oblast.

##### **Apostolivskyi Lyceum No. 3 in Dnipropetrovsk Oblast**

Children abroad study individually but are officially enrolled in in-person education. Only one child is enrolled in family education. Ukrainian language, literature, and history are studied at the school. For other subjects, only assessments are conducted, and some grades are transferred.

Personal chats have been created for such students, and they have access to the Padlet board. Primary school teachers consult these students using digital platforms on weekends.

During the study, it was found that some schools have developed comprehensive systemic solutions for organizing the educational process during the war. These include metro schools, subterranean schools, relocated boarding schools, and network schools. The next chapter describes them as new school formats that emerged in Ukraine during the war.

In communities where schools were destroyed, digital education centers were created to organize the educational process in temporary premises while the main school buildings are being restored. Such adaptation models will be briefly described based on the analysis of focus group and in-depth interview results.



## CHAPTER 7. MODELS FOR RESTORING EDUCATION IN LOCAL COMMUNITIES VIA CREATING TEMPORARY EDUCATIONAL SPACES AND DIGITAL LEARNING CENTERS

Communities that were occupied or experienced damage to educational institutions during shelling face significant challenges in ensuring access to education. The biggest issue has been the loss of buildings and sports facilities, the destruction or looting of educational equipment, including digital devices, by Russian forces.

In different regions, the process of restoring access to education progresses at varying rates. For example, as of January 2023, in Chernihiv region, 59 % of damaged educational institutions had been repaired, and in Kyiv region, 71 % of institutions were restored. In ten communities of Kyiv region (including Borodyanka, Bucha, Makariv, Ivankiv), all schools have been restored.

In contrast, the situation in Kharkiv region is much worse. Only 13 out of 296 affected schools have been repaired.<sup>265</sup>

Gradually, certain action algorithms for restoring education in local communities have been developed. These algorithms generally have three stages: 1) Collection of operational data regarding damages or destruction; 2) Collection and summarizing of information after the end of hostilities (prepared by local authorities); 3) Preparation of a technical report on the condition of structures, determining the extent of their damage.<sup>266</sup>

While the process of restoring schools is ongoing, communities have decided to open temporary educational spaces where educational process can be organized in a blended format or conditions can be created for working with gadgets or addressing learning losses. With the support of international organizations such as UNICEF, Save the Children, IREX, the SURGe project, and the savED charitable foundation, temporary educational spaces have started to be created where the educational process can begin.

The “Ensuring Access to School Education” initiative of the SURGe project developed models for restoring access to education in de-occupied communities. Eight communities were identified where at least one of the following conditions was met: the school building was destroyed or damaged; a large number of internally displaced persons of school age lived in the school district; or the school was located in an area with a high degree of mine-explosive danger.

Based on the methods for addressing existing challenges and the specifics of the initial situation, communities were grouped into two categories:

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<sup>265</sup> Kogut, I., Nikulina, O., Syrbu, O., Zheryobkina, T., & Nazarenko, Yu. (2023). War and Education: How a Year of Full-Scale Invasion Affected Ukrainian Schools. CEDOS, savED. P. 88-89. [In Ukrainian] <https://cutt.ly/eezjcd3E>

<sup>266</sup> Ministry of Development of Communities and Territories of Ukraine. (2022). Normative and legal regulation of issues of inspection and implementation of priority works for the restoration of damaged objects. [In Ukrainian] <https://decentralization.ua/en/news/14857>

- 1) Communities where the school building is destroyed and requires the creation of a temporary educational space that will function as a school and/or learning center, and for organizing meaningful leisure activities.
- 2) Communities where the school survived or has damage that can be relatively quickly localized, and which require the creation of digital educational centers to support additional activities beyond the scope of the educational institution's program, and to organize meaningful leisure for children and adolescents.<sup>267</sup>

Accordingly, two models of such spaces in local communities were developed:

- Temporary educational spaces that function as a school.
- Digital educational centers that serve as spaces for working with digital devices, consultations on addressing learning losses, extracurricular activities, and psychosocial support.

The difference between the models mainly lies in the functions of these spaces. The first model involves using the space as a temporary school, while the second model is for educational centers for consultations, addressing learning losses, and a place for communication and working with digital devices. The research concluded that the first model is rarely used in its pure form and often overlaps with the functions of the second model.

Our study involved leaders of educational institutions from Chernihiv, Kyiv, Dnipropetrovsk, and Mykolaiv regions who participated in education recovery projects in communities through temporary educational spaces and digital educational centers (SURGe, savED).

## **Model 1: Temporary Educational Space Functioning as a School**

For this model, it is crucial that the space is used both for educating children (at least in a blended format) and for extracurricular activities, free use of gadgets, leisure, and additional support for students in their studies. In other words, the space primarily functions as a school but also operates as an open space with digital equipment that can be used by students and teachers for consultations and individual sessions.

**“With the support of the Government of Canada, we have built a modular one-room facility. It functions as an elementary school in a blended mode with two shifts”.**

— Lyudmyla Rybychenko, Director of Zahaltskyi Lyceum, Kyiv Region

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<sup>267</sup> SURGe. (2023). Models of restoration of access to education in the conditions of war on the example of communities of Kyiv, Zhytomyr, and Chernihiv regions. [In Ukrainian]  
<https://drive.google.com/file/d/1JRq6FKd1nk96La9DfbANtpQcYNA6ELUy/view>

**“We were given the second floor in the village council building. Four rooms. This is a consultation point. It hosts various activities, including communication with parents. The savED project provided us with three wonderful classrooms in the culture house (with windows, powerful internet, heating, boiler, restrooms, furniture, laptops...). Later on, the same will be provided for three more classrooms”.**

**— Viktor Mushyn, Director of Chervonodolyne Lyceum, Mykolaiv Region**

## **Model 2: Digital Educational Center for Consultation and Extracurricular Activities**

Such centers are created at schools or opened in a community for several schools. They serve as spaces for additional educational activities, remote learning, teacher work, as well as for organizing leisure activities and communication for children and teenagers.

*A Digital Learning Center (DLC) is a relatively quick solution for creating an educational space in communities affected by war (with destroyed or damaged educational infrastructure; with children who have experienced shelling, occupation, evacuation; and in communities with a significant number of internally displaced children who need socialization and support in the educational process)<sup>268</sup>.*

The savED charitable foundation has developed a procedure for establishing such centers in communities, which includes the following stages: 1. Selecting communities and institutions for launching future DLCs; 2. Preparing the physical space of the DLC (repairing the premises, providing material and technical support, etc.); 3. Staffing and organizing educational activities; 4. Establishing communication and attracting visitors; 5. Monitoring and evaluating activities; 6. Ensuring the sustainability of the DLC's operation.<sup>269</sup>

**“In the summer of 2022, the savED foundation proposed to create a digital learning center based on a school for remote learning. By September 2022, the premises were repaired, provided with equipment, computers, and literature. Children without gadgets could come to use the technology in the digital learning center. UNICEF provided laptops for teachers”.**

**— Mykola Shpak, Director of Mykhailo-Kotsiubynskyi Lyceum**

<sup>268</sup> [https://decentralization.ua/uploads/library/file/896/DLC\\_Handbook\\_2023\\_210x210\\_final\\_online.pdf](https://decentralization.ua/uploads/library/file/896/DLC_Handbook_2023_210x210_final_online.pdf), p. 4. [In Ukrainian]

<sup>269</sup> [https://decentralization.ua/uploads/library/file/896/DLC\\_Handbook\\_2023\\_210x210\\_final\\_online.pdf](https://decentralization.ua/uploads/library/file/896/DLC_Handbook_2023_210x210_final_online.pdf) [In Ukrainian]

As of 2024, organizations involved in recovery are developing algorithms and models for creating digital learning centers and modular schools. These models include not only providing physical spaces but also assisting communities in developing growth strategies and creating software solutions for operating these centers. The main problem is finding funding and maintaining such centers in local communities.

### Case Study: Temporary Educational Space

Temporary educational spaces began to appear in modular buildings constructed in local communities with the support of international partners (IREX, USAID, SURGe) and charitable organizations (savED).

These spaces are mobile and can be quickly assembled (in approximately one and a half months). They provide a solution for local communities where school buildings have been destroyed. Communities can choose a location for such a space based on the security characteristics of the area and the availability of nearby shelters.

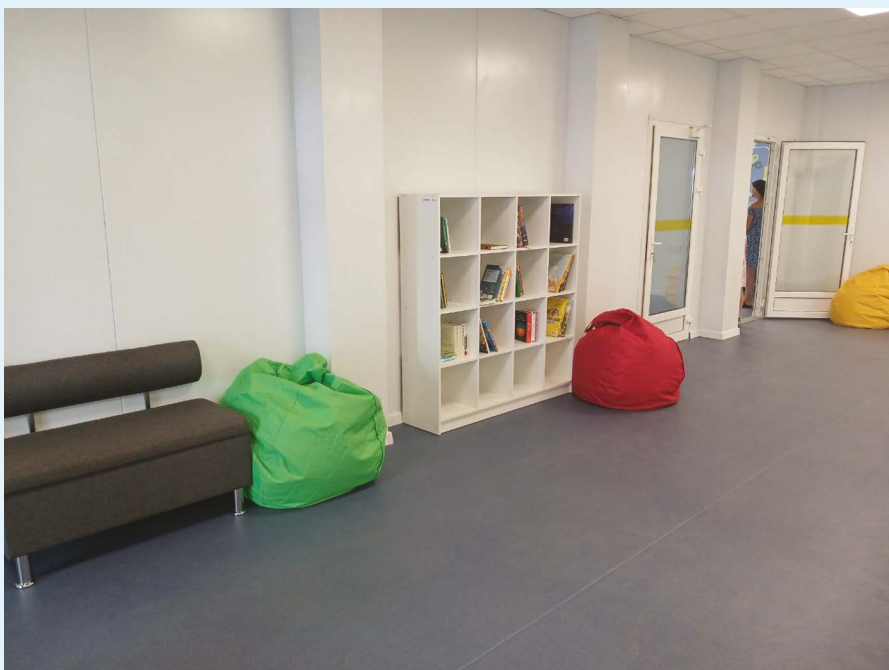
These temporary educational spaces function as schools for the community's children while the main school building is being restored.

The spaces can vary in size: from a small building with one classroom (Zahaltsi village, Kyiv region) to nearly a full-fledged school with six classrooms (Bohdanivka village, Kyiv region).



Zahaltsi Lyceum, Borodyanka Village Council (Kyiv Region)





Bohdanivka Gymnasium, Velikodimerska Community (Kyiv Region)

For example, the new temporary educational space at Bohdanivka Gymnasium demonstrates what such a space looks like. It meets the requirements for accessibility and architectural suitability.

The facility is fully equipped for teaching children: classrooms with modern furniture, lighting, air conditioning and heating systems, convenient modern restrooms, and water supply.



The mobility of such facilities allows them to be quickly reconstructed, relocated, and assembled elsewhere. Thus, when the main school is rebuilt, the facility may either remain in the community and become part of the educational infrastructure or be moved to another community where there is a need for a temporary educational space.

### Bohdanivka Gymnasium

From March 8 to 29, 2022, Bohdanivka was under occupation. Russians lived in the educational institutions. When they left, they burned down the school and blew up the kindergarten. The village's educational and other infrastructure was destroyed. It was decided to establish an elementary school and a digital learning center in the culture house (with support from savED and SURGe projects). In total, five classrooms were set up for 16 classes.



In the 2022 / 2023 academic year, the first grade always attended in-person during the first shift, grades 2–4 attended in-person during the first shift in a blended format. Higher grades followed a complex mixed timetable, covering both shifts (the first shift remotely; one day a week — the second shift in-person, without the first shift); lesson duration (30 minutes) and breaks (10 minutes) were shortened.

Teachers faced many challenges: long working hours, transitioning from one work format to another, and unpredictability of the schedule for the next school day (in case of an air raid alert, lessons needed to be prepared in two versions, for in-person and distance learning formats).

In the 2023 / 2024 academic year, the elementary school is based in the culture house. Higher grades are taught in-person during the second shift, which is inconvenient, especially since power outages often occur in the afternoon. Consequently, some parents decided to transfer their children to another school where classes are organized only in the first shift.

In August 2024, another temporary educational space was opened for the school (in a newly built modular facility), where higher grades will study.

## CHAPTER 8: NEW SCHOOL FORMATS

Martial law lead to the emergence of new school formats as systemic solutions for adapting the educational process to the war: relocated schools with boarding, schools in metro stations, subterranean schools, and network schools.

### Relocated Boarding School

**Characteristics:** Such schools provide, in addition to educational services, boarding and meal services for some of their students. The goal of these schools is to maintain the community of students and teachers who have been displaced from temporarily occupied territories and ensure their mutual support.

**Usage Conditions:** An institution evacuated from a temporarily occupied territory to a relatively safe region accepts displaced students from that territory, who can study either in person or remotely while being in temporarily occupied territories or abroad.

**Advantages:** Preservation of the teaching and student community; Access to education for displaced students; Possibility of in-person learning; High level of organization of the educational process (pedagogical component); Opportunity to feel the support of one's community.

**Disadvantages:** Difficulties in accommodating children and creating comfortable living conditions and safe food provision; Limitations regarding the age categories of children who can use these services; Disruption of parental care and family upbringing for the students.

**Examples:** Mariupol Lyceum in Kyiv.

The case of the lyceum could become a model for creating a network of relocated schools in Ukraine for children from temporarily occupied and frontline territories. The value of such schools lies in preserving the community of "one's people", who understand each other's needs, and support one another through hardship.

The network of relocated boarding schools will allow children from abroad and from temporarily occupied territories to return to Ukraine, residing in relatively safe regions.

#### Mariupol Lyceum in Kyiv(§)

"When the question arose about what to do with Mariupol schools, whether to disband them, I turned to the city mayor, V. Boichenko... and said that almost all teachers are ready to continue working. And we continue working, we found almost all our students, we are ready to continue..."

— Andriy Holutyak, Director of Mariupol Lyceum in Kyiv

Mariupol Lyceum became the only institution in Mariupol that managed to resume classes in the spring of 2022 in a remote format, as most its teachers had moved to controlled territories.

The lyceum offers education in various profiles: foreign languages, information technology, historical-legal, and physical-mathematical profiles.

The relocation of the lyceum to Kyiv took place with the support of the Kyiv City Mayor and Kyiv City Council in 2023. This was the first case of evacuating a secondary education institution from an occupied territory. The lyceum is located in Pushcha-Vodytsia (a suburbs of Kyiv), occupying the third floor of the Special Boarding School for Visually Impaired Children No. 4. The lyceum's activities are financed from the budget of the Obolon district of Kyiv.

The lyceum includes a boarding facility where 30 students live, eight per room. They receive free five-time meals. Both classrooms and dormitories are located on the same floor. There are living rooms, shower stalls, and washing machines. The children stay in the boarding facility for a full term and go home for vacations.



The lyceum educates over 300 students in grades 8–11, of which 100 attend in person, and others join classes via remote technologies. In addition to

children from Mariupol, there are students from other cities in Donetsk region, and a few from Kyiv region. Twenty students are from occupied territories.

The lyceum accepts children with internally displaced persons (IDP) status, usually from families in difficult life circumstances (parents at war, in captivity, or deceased). At the same time, the lyceum works with intellectually gifted children who show high academic performance.

“We focus on education, success, and knowledge. It’s not just about waiting somewhere until parents are at war”.

— Andriy Holutyak, Director

## Metro Schools

**Characteristics:** Students are taught in classrooms set up in metro station underground facilities. These spaces are equipped with ventilation, climate control systems, and all necessary utilities. Such classrooms can accommodate all students living in the city, regardless of their district. Schools operate in a blended format with a rotational model and two shifts to cover as many students as possible. Municipal transportation provides access to the school.

**Usage Conditions:** In cities under constant shelling where metro systems exist, an underground school is the only option for in-person learning. Parents must express their desire for their children to attend such a school.

**Advantages:** Creates conditions for in-person learning and social interaction in dangerous regions; Enhances the quality of education; Provides socialization and psychological support for students.

**Disadvantages:** Limited capacity in such facilities; Risks involved in transporting children; Need to stay underground for extended periods; Feasible only in large cities with metro systems.

**Examples:** Metro schools in Kharkiv.

### Metro Schools in Kharkiv

“Those children who are learning are already heroes. The overwhelming majority of students in Kharkiv are studying online. But considering the huge need for offline learning...”

— Olga Demenko, Director of the Education Department of Kharkiv City Council(†)

In Kharkiv, where shelling is almost constant, offline learning seemed impossible. However, local authorities proposed a bold solution — creating schools in the metro. In 2024, the city has five metro schools where 2,210 children study in two shifts. Plans are underway to open schools at other metro stations. Most schools in Kharkiv operate online, with only these metro schools offering a blended learning format. Despite everything, children continue to participate in nationwide competitions and Olympiads, earning prize places.

#### WHAT ARE METRO SCHOOLS?

Metro schools are classrooms set up in metro stations. Each of the five stations has five to seven classrooms and a shared educational space. These classrooms are built in underground metro halls using plastic glass panels with soundproofing. The schools are equipped with climate control systems to maintain optimal air conditions year-round. Classrooms feature modern furniture and interactive boards.

#### HOW ARE STUDENTS ENROLLED?

Parents who want their children to attend a metro school submit a request to the district education department in Kharkiv. Their children are temporarily withdrawn from their regular schools and enrolled in the metro school. Schools are assigned to specific metro stations, with each school linked to a metro classroom. Each classroom accommodates about 20 students, as a rule, primary school students, but there are also secondary school classes.

#### HOW DO EDUCATIONAL STAFF WORK?

Educational staff in metro schools have a specific workload and are employed by the school to which their classroom legally belongs.

#### HOW IS THE WORK OF METRO SCHOOLS ORGANIZED?

Schools operate in two shifts, students visit them every other day. Each shift includes three lessons. This setup increases capacity and allows coverage of four times more students than the space can normally hold. Students learn in a blended format, with subjects such as Ukrainian language, English, mathematics, and physics taught in person, while other subjects are studied online.

Each classroom has three adults present: a teacher, a tutor, and a psychologist. Transportation for children to and from the schools is organized in collaboration with the Department of Transport and the patrol police. Schools provide meals prepared and delivered in lunch boxes.



Metro schools operate seven days a week. On weekends, school preparation classes are offered for six-year-olds. The main focus is on socialization and gaining learning skills.



## Subterranean School

**Characteristics:** An underground facility has been built as a modern shelter equipped for educational purposes and used as a school. The school includes all necessary utilities, ventilation, climate control systems, and electricity. It has fully equipped classrooms, and the toilets meet sanitary standards.

**Usage Conditions:** The school is located in a high-risk area where shelling is continuous; in-person learning in above-ground buildings is impossible. Students from any district of the city can be enrolled upon parental request.

**Advantages:** Equipped facilities that meet all sanitary requirements; Can be used both as a shelter and a fully functional school; Provides conditions for in-person learning and direct student interaction in dangerous regions.

**Disadvantages:** High construction costs; Risks involved in transporting teachers and students to and from the school; Constant underground presence for children.

**Example:** Underground school in Kharkiv.



## Underground School in Kharkiv

“Today we have all the formats we can use in a hotspot, constantly under shelling... We have metro schools, we have underground radioactive shelters in schools, and we have... an underground school...”

— Olga Demenko, Director of the Education Department of Kharkiv City Council(‡)

The first underground school was built on the premises of one of Kharkiv’s schools as a shelter for 450 children but is used as a full-fledged school. Further construction of underground schools is planned in Kharkiv to address the issue of organizing a comprehensive educational process for children.

The school includes 21 classrooms, toilets, and ventilation. It also has a hall and a small food preparation area.

Enrollment is limited to children living nearby to avoid the need for transportation. For the new academic year, it is planned to accommodate 1,200 children (in two shifts, in a blended format).

## Network School

**Characteristics:** The school primarily operates in a blended format using an enriched virtual environment model, featuring a network of hubs located in cities with compact living arrangements for temporarily displaced students and teachers for communication and educational interaction. Several schools unite to create a shared online platform, where teachers conduct synchronous lessons for all students in a grade (sometimes for multiple schools within the network). On-site learning can be organized based on specific hubs.

**Usage Conditions:** The school is evacuated; students live in different locations but there are areas where they live compactly, where hub spaces are created. Students can learn in a blended format or in person based on these hubs. Students abroad, in temporarily occupied territories, or in other parts of Ukraine outside the community’s compact living areas, participate in education remotely.

**Advantages:** Provides a sense of belonging to the community; Mutual support; Preserves the educational institution and its traditions; Maintains a familiar learning style for children.

**Disadvantages:** Mainly remote learning format; Challenges in synchronizing educational processes; Inability to gather all participants in person.

**Examples:** Melitopol Lyceum No. 16 in Zaporizhzhia Region.

## Melitopol Lyceum No. 16

**“This school is the only thing that keeps my connection to Melitopol.”**

**— Words from the parents of the lyceum students**

**“There are cases when a child studies in another school and returns to us due to bullying ‘outsiders’”.**

**— Natalia Savchenko, Director of the Lyceum(‡)**

The lyceum was occupied from the second day of the full-scale war. It was able to resume classes from September 1, 2022. The electronic teacher’s platform enabled communication with students and teachers. Classes were combined for synchronous lessons. Some teachers (especially those who did not leave Melitopol) could not work synchronously and instead developed learning materials, assignments, and conducted assessments. Four “Melitopol” educational hubs have been established in Lviv, Dnipro, Zaporizhzhia, and Kyiv (located in rented private spaces as requested by Zaporizhzhia). Melitopol communities are gathered around these hubs. The Melitopol teaching community created an online platform through which teachers conduct online lessons according to a shared schedule for students, regardless of which school they attend. For example, if a school has a physics teacher, that teacher conducts lessons for all students. The platform allows for lesson development using a template in a “constructor”. Some students are abroad, others in occupied territories. Consultations for those abroad or in occupied territories are held after 5 p.m.

**“We invented coaching sessions conducted by our teachers. In the first year: gentle Ukrainization, media education, digital technologies, democratic school. This year: strong Ukrainization, formative assessment, fairy tale therapy, digital technologies, artificial intelligence, mine safety”.**

**— Natalia Savchenko, Director of the Lyceum(‡)**

## CONCLUDING REMARKS.

### LESSONS OF WAR FOR EDUCATION

The results of international studies on how schools in other countries adapted to crisis conditions reveal that outcomes depend heavily on the level of economic development of the country and the nature of the crisis faced by society. For instance, a blended learning model, which was modified based on the material and technical conditions of participants, their level of digital competence, and their emotional state, became the primary model for continuing education in some highly developed Western European and North American countries during the COVID-19 pandemic.

In contrast, the situation with schools in certain African, Middle Eastern, and Balkan countries, which have suffered from prolonged wars and internal conflicts, was quite different. Thanks to the efforts of international organizations caring for refugees, minimal conditions for continuing education were provided, including the reconstruction of damaged schools, the establishment of schools in refugee camps, the enhancement of teacher competencies, the development and adaptation of educational materials, and the provision of psychological support to students and teachers, as well as extending school hours and other measures. Despite these collective efforts, unresolved challenges remain, such as overcoming gender inequality in access to secondary education, insufficient funding, maintaining personal hygiene, providing food, ensuring student attendance, teacher shortages, learning losses, and ways to minimize them. An exception is Israel as the most recent example of adapting schools to learning under wartime conditions. The country, which has been in a state of perpetual war since its creation, has a relatively stable and robust educational system. After the unexpected attack by the terrorist organization Hamas on October 7, 2023, Israel managed to ensure the continuation of the educational process, which was suspended for periods ranging from a few weeks to months in some regions. With a surge in refugees, schools operated in shifts, new schools were opened, and necessary material and psychological support was provided to students and their families. The Israeli Ministry of Education also established an Emotional Support Center and approved a separate national program “Education for Revival”, planned for four years with nearly half a billion USD in funding.

For Ukrainian authorities or school administrators accustomed to operating by rules and procedures, war represents a situation of uncertainty where adherence to old peacetime rules often makes no sense and can even threaten the lives and health of children. New rules during wartime are still lacking, and there is no similar experience from other countries that could be immediately applied without adaptation. Ukraine’s experience in public policy decisions regarding general secondary education during the large-scale invasion of Russia is unique due to factors such as the scale and diversity of the school network, the peculiarities of state governance in the education system, regional characteristics of each territorial community arising from recent decentralization, uneven spread of combat activities across Ukraine, mass internal and external migration processes, diverse approaches of host countries to organizing education for Ukrainians, exacerbation

of educational losses after the COVID-19 quarantine restrictions, the need to preserve students' mental health, and the continuation of the "New Ukrainian School" reform despite the war. All these challenges are set against the backdrop of constant combat actions, missile, and bomb attacks on Ukraine's infrastructure.

Ukrainian authorities were compelled to create a "library" of political decisions that could be considered universal for a country at war. These decisions aimed to offer balanced (as much as possible) approaches in a wide range of conditions, though not all could be fully implemented, and some had to be abandoned. Schools had a somewhat simpler task in this context, as they needed to make a series of local decisions for organizing their educational processes, which collectively and diversely contributed to the forced adaptations of Ukraine's general secondary education system.

Among the consequences of the war in Ukraine are learning losses. Specific factors influencing these losses include residence in temporarily occupied territories, living in active combat zones, relocation, destruction of educational institutions, air raids, and power outages. Ukraine is implementing a policy to address learning losses, which includes diagnosing and identifying learning gaps, creating online courses, training the teachers to address these gaps, and developing shortened curricula for children abroad. With the support of international organizations and charitable foundations, digital learning centers, summer camps, and tutoring platforms are being established to mitigate learning losses. However, as of the time of this study, a comprehensive strategy to address learning losses has not yet been approved, and a cohesive systemic approach to tackling these losses has not been introduced.

Based on analyzed scientific and analytical research, as well as focus groups and in-depth interviews with Ukrainian school administrations, several key problems faced by Ukrainian secondary education institutions during the war were identified: the inaccessibility of in-person learning for many students; the lack of fully equipped shelters and sometimes prolonged stays in them even after the school day ends; frequent interruptions in the educational process due to air raids and power outages; difficulties accessing Ukrainian education for children abroad and in temporarily occupied territories; deterioration in the psychological and emotional state of students and teachers; non-compliance with sanitary regulations regarding the maximum duration of online lessons; and mismatches between curriculum planning and the actual educational process.

The study summarized the approaches that respondents had practically applied and outlined unresolved issues. For instance, the issue of teacher compensation for those staying in shelters outside working hours has not been regulated. Additionally, there are no clear instructions for procedures to follow if an air raid alert occurs during centralized transportation of children to school.

The research found that decisions regarding the adaptation of educational processes in institutions were made based on the conditions in which the institution found itself due to military actions. Significant factors for decision-making included: the territory's control by Ukrainian authorities, proximity to the front line, shelling, the availability of undamaged school premises, the presence of shelters, their capacity, and their suitability for organizing the educational process.

As a result, schools in relatively safe regions of the country with undamaged premises and equipped shelters can operate in person or (if the shelter does not accommodate all students) in a blended format. Changes in the educational process are mostly related to working with internally displaced students, children abroad, and organizing psychological support for students and teachers within the institution. At the same time, air raids and power outages cause interruptions in the educational process, forcing teachers to duplicate materials in digital format, adapt curriculum planning, and adjust teaching methods.

Schools located near combat zones primarily organize remote learning. There has been successful experimentation with new formats of institutions (though they are relevant mostly for large cities) — metro-schools and underground schools, which are the only feasible option for blended learning in dangerous areas. However, transporting students to educational sites remains hazardous.

Schools with damaged premises organize learning either remotely or in a blended format, if they find temporary premises in other educational institutions, temporary modular schools, or digital learning centers. Modular schools and digital learning centers are mainly established in Ukraine with funding from international organizations and non-governmental donors. Typically, it is not possible to organize educational process for all students in such facilities, so various optimization solutions are adopted: offline learning for only the primary and graduation classes, using the space for non-systematic in-person meetings and live interactions, and student consultations.

Pedagogical teams from schools located in occupied territories have evacuated to safer regions in Ukraine (some to other countries) and resumed teaching. However, the number of students in these schools has decreased, with many children abroad simultaneously attending two schools.

The challenging conditions under which secondary education institutions in Ukraine operate have led to the search for new teaching models and pedagogical practices. Various models have been developed within the main formats of education (in-person, remote, blended, individual) that account for the specific situations in which schools find themselves. The main educational models are: in-person learning during wartime; remote learning (synchronous, asynchronous, and blended synchronous-asynchronous models); blended learning (rotational, flexible, enriched virtual environment, synchronous learning in both in-person and remote formats); and individual learning (individualized form, in-person learning based on an individual educational trajectory). The choice of each model depends on both the general conditions in which the institution operates (territory control, proximity to the front line, undamaged premises, availability and suitability of shelters) and internal characteristics (number of students in different learning formats, number of displaced students, students abroad), as well as teachers' readiness for different working modes and their proficiency in pedagogical technologies. Schools have gained experience through a challenging empirical process. Many institutions, in their first year of operation under martial law, developed models that proved complex to organize and exhausting for teachers. Pedagogical teams demonstrated high flexibility in adapting the educational process: simplifying models, optimizing processes, focusing on comfortable

working conditions for teachers and optimal schedules for students, and prioritizing opportunities for live interaction for most participants in the educational process.

During the adaptation of secondary education institutions to the challenges of war, new formats of educational institutions emerged: metro-schools and underground schools (as a way to organize blended learning in dangerous regions), and relocated schools with boarding facilities (as a means to preserve student and teaching communities and ensure a quality educational process while in evacuation). This experience is unique and deserves the attention of both domestic and international pedagogical communities.

In communities that have been shelled, resulting in the destruction of schools, digital learning centers are being established with the support of public and international organizations. DLCs are organized around two main models: 1) a temporary educational space with a digital learning center; 2) a digital educational center for consultations and extracurricular activities. The difference between these models is that in the first case, the center essentially functions as a temporary school (in cases where the premises are completely destroyed or unsafe), while in the second case, it serves as a consultation point used for addressing learning losses, remote self-learning, and various extracurricular activities for students. In both cases, these learning centers are lifesavers for students in communities where educational institutions have been completely or partially damaged.

Psychological support for students and teachers is largely provided through international projects working with school psychologists and teachers. The vast majority of teaching staff have undergone training in providing first psychological aid to students, either in-person or remotely. However, almost all study participants reported an increase in students needing psychological help, special attention, and psycho-pedagogical support due to internal displacement, psychological trauma, and learning losses. Nevertheless, school psychologists are struggling to cope with this burden. The need for reforming the psychological support system in schools is evident.

The issue of education for children with special educational needs remains unresolved. Study participants noted that during remote learning, inclusivity loses its effectiveness as children are distanced from the teacher and teaching assistant and virtually receive no adequate support.

There are no specific programs for adapting internally displaced persons. Participants reported that they pay extra attention to integrating these students into school activities and communicating with classmates. At the same time, some school leaders from temporarily occupied territories mentioned cases where their students became victims of bullying when they went to a different school.

Students abroad are in a difficult situation because most of them are enrolled simultaneously in two educational institutions: one abroad and one in Ukraine. According to study participants, most of these students maintain contact with their Ukrainian school as it provides psychological support or they wish to return. However, their education is becoming increasingly challenging: educators either do not provide individual consultations due to a lack of funding and general exhaustion or do so on a voluntary basis. Education for these children in a family (home) or external form involves minimal paid hours for consultations and assessments. Some schools have experience connecting students to



remote lessons or including them remotely in in-person classes. Almost all participants indicated that they provide students with access to educational materials available as digital resources. However, this does not systematically address the issues of these children being overloaded and having learning losses. Assessment of student learning outcomes abroad focuses on subjects with a Ukrainian component (Ukrainian language, Ukrainian literature, history of Ukraine, geography). Other subjects are generally credited by most educational institutions. However, this does not apply to institutions with advanced study of specific subjects, especially in mathematics and science cycles. The education of children abroad needs to become part of state policy on human capital preservation and requires the development of comprehensive solutions.

## Questionnaires for Conducting Semi-Structured In-Depth Interviews and Focus Groups

### 1. Guide for Conducting Semi-Structured In-Depth Interviews with School Principals

The OsvitAnalytics think tank, in collaboration with the State Service for Quality Education of Ukraine and the NGO KUNSHT, with support from ISAR “Unity” within the framework of the “Sectoral Support Initiative for Civil Society” project, is conducting the research “Adaptation of Schools in Ukraine to Martial Law”.

#### **Introduction:**

- What conditions is your school currently working under?
- What impact has the war had?
- What were the most challenging issues you had to address?
- What strategic decisions have been made to organize the educational process in the institution?

#### **Block 1: Organization of the Educational Process**

- How is the education process organized at your institution (general description of the model)?
- How has the organization of the educational process changed during the war (admission of children, schedule adaptation, nutrition, transportation)?
- How does the school ensure the safety of students and teachers during the educational process (shelters, protocols during alerts, instructions for students and teachers)?
- What challenges are associated with this?
- Is there experience in providing psychological support to staff and students?
- What is the approximate level of student attendance in lessons? How has it changed since the start of the full-scale invasion?

#### **Block 2: Lesson Methodology in Mixed Learning**

- How has the methodology of conducting lessons changed?
- Have new models for conducting lessons been developed? Methodological recommendations for teachers?
- What tools and resources are used by teachers in the remote learning format?
- How does the school adhere to / not adhere to sanitary requirements regarding the duration of online lessons?

#### **Block 3**

- How is work organized with children who are abroad?

- Is there contact with platforms or organizations that deal with the education of children abroad?
- Do teachers receive additional payment for consultations, assessment of these students' results?
- What are the main challenges related to working with this category of students? Are these challenges being overcome?

#### **Block 4**

- How is work organized with internally displaced children?
- How is their integration into the educational process and school environment carried out?
- Have there been cases of bullying towards them?
- What are the main challenges related to working with this category of students? Are these challenges being overcome?

#### **Block 5**

- What innovations have emerged in working with parents (new communication channels, forms of interaction, guides on remote learning, behavior during alerts, etc.)?
- Do you receive feedback about parents' requests?

## **2. Guide for Semi-structured In-depth Interviews with School Principals**

The OsvitAnalytics think tank, in collaboration with the State Service for Quality Education of Ukraine and the NGO KUNSHT, with support from ISAR "Unity" within the framework of the "Sectoral Support Initiative for Civil Society" project, is conducting the research "Adaptation of Schools in Ukraine to Martial Law".

#### **Introduction:**

- Introduction of focus group participants and the institutions where they work.
- In what format is education taking place at your school?
- What model of blended learning is being used?
- Would you like to change the format of work? If so, what is needed to make these changes?

#### **Block 1: Organization of the Educational Process**

- How has the organization of the educational process changed during the war (admission of children, schedule adaptation, nutrition, transportation)?
- How do schools ensure the safety of students and teachers during the educational process (shelters, protocols during alerts, instructions for students and teachers)?
- What challenges are associated with this?
- Is there experience in providing psychological support to staff and students?
- What is the approximate level of student attendance in lessons? How has it changed since the start of the full-scale invasion?

- How does the school adhere to / not adhere to sanitary requirements regarding the duration of online lessons?

## **Block 2: Lesson Methodology in Blended Learning**

- How has the methodology for conducting lessons changed?
- Have new models for conducting lessons been developed? Methodological recommendations for teachers?
- What tools and resources are used by teachers in the remote learning format?

## **Block 3**

- How is work organized with children who are abroad?
- Is there contact with platforms or organizations that deal with the education of children abroad?
- Do teachers receive additional payment for consultations, assessment of these students' results?
- What are the main challenges related to working with this category of students? Are these challenges being overcome?

## **Block 4**

- How is work organized with internally displaced children?
- How is their integration into the educational process and school environment carried out?
- Have there been cases of bullying towards them?
- What are the main challenges related to working with this category of students? Are these challenges being overcome?

## **Block 5**

- What innovations have emerged in working with parents (new communication channels, forms of interaction, guides on remote learning, behavior during alerts, etc.)?
- Do you receive feedback about parents' requests?

The number of destroyed and damaged schools in Ukraine<sup>270</sup>

Region	Number of schools in 2021, units	Number of schools in 2023, units	Destroyed schools as of 08.2024, unit	Damaged schools as of 08.2024, unit	Share of affected schools, % by 2021.
<b>West</b>	<b>5 016</b>	<b>4 775</b>	<b>2</b>	<b>70</b>	<b>1,4%</b>
Volynska	561	537	None		
Zakarpattia	586	574	None		
Ivano-Frankivsk	606	562	0	1	0,2%
Lviv	1 130	1 102	2	10	1,1%
Rivne	553	541	0	2	0,4%
Ternopilska	653	587	None		
Khmelnitska	578	531	0	57	9,9%
Chernivtsi	349	341	None		
<b>North</b>	<b>2 614</b>	<b>2 494</b>	<b>12</b>	<b>437</b>	<b>17,2%</b>
Kyiv	579	590	0	81	14,0%
Zhytomyr	578	527	1	66	11,6%
Kyivska	656	632	3	128	20,0%
Sumy	375	352	6	83	23,7%
Chernihivska	349	393	2	79	19,0%
<b>Center</b>	<b>1 984</b>	<b>1 865</b>	<b>0</b>	<b>24</b>	<b>1,2%</b>
Vinnitsia	654	618	0	1	0,2%
Kirovohradska	303	283	0	4	1,3%
Poltava	534	507	0	7	1,3%
Cherkassy	493	457	0	12	2,4%
<b>South</b>	<b>2 069</b>	<b>1 751</b>	<b>54</b>	<b>357</b>	<b>19,9%</b>
Zaporizhzhia	496	421	0	64	12,9%
Mykolayivska	453	431	19	123	31,3%
Odesa	736	712	0	45	6,1%
Khersonska	384	187	35	125	41,7%
<b>East</b>	<b>2 308</b>	<b>1 816</b>	<b>131</b>	<b>736</b>	<b>37,6%</b>
Dnipropetrovka	848	827	10	165	20,6%
Donetsk	491	275	62	168	46,8%
Luhansk	254	85	11	98	42,9%
Kharkivska	715	629	48	305	49,4%
<b>Ukraine total</b>	<b>13 991</b>	<b>12 701</b>	<b>199</b>	<b>1 624</b>	<b>13,0%</b>

<sup>270</sup> Compiled according to the data of: Derzhstat. (2022). General secondary education in Ukraine in 2021. Table 7. <https://tinyurl.com/mys2wz8a>; State Statistics Service (2024). General secondary education in Ukraine in 2023. Table 6. <https://tinyurl.com/4384e54x>; Education is under threat. (n.d.). <https://saveschools.in.ua/>

Number of students in Ukrainian schools<sup>271</sup>

Region	Number of students as of September 1, 2021, persons	Number of students as of September 1, 2022, persons	Number of students as of September 1, 2023, persons	Change between 2021 and 2023, persons	Change between 2021 and 2023, %
<b>West</b>	<b>1 291 706</b>	<b>1 294 016</b>	<b>1 267 746</b>	<b>-23 960</b>	<b>-1,9%</b>
Volynska	144 931	144 690	141 568	-3 363	-2,3%
Zakarpattia	171 065	169 237	164 045	-7 020	-4,1%
Ivano-Frankivska	161 157	161 006	158 127	-3 030	-1,9%
Lviv	289 187	291 899	288 337	-850	-0,3%
Rivne	167 633	168 240	165 873	-1 760	-1,0%
Ternopil'ska	110 968	110 030	106 337	-4 631	-4,2%
Khmelnytska	138 791	140 278	136 922	-1 869	-1,3%
Chernivtsi	107 974	108 636	106 537	-1 437	-1,3%
<b>North</b>	<b>909 179</b>	<b>907 966</b>	<b>892 378</b>	<b>-16 801</b>	<b>-1,8%</b>
Kyiv	335 298	338 583	336 423	+1 125	+0,3%
Zhytomyr	138 486	137 658	134 276	-4 210	-3,0%
Kyiv'ska	240 41	241 348	238 588	-1 831	-0,8%
Sumy	98 377	96 287	92 479	-5 898	-6,0%
Chernihiv'ska	96 599	94 090	90 612	-5 987	-6,2%
<b>Center</b>	<b>518 728</b>	<b>522 879</b>	<b>510 056</b>	<b>-8 672</b>	<b>-1,7%</b>
Vinnytsia	166 368	167 546	163 168	-3 200	-1,9%
Kirovohradska	96 568	96 987	94 676	-1 892	-2,0%
Poltava	138 594	140 328	136 110	-2 484	-1,8%
Cherkassy	117 198	118 018	116 102	-1 096	-0,9%
<b>South</b>	<b>684 829</b>	<b>611 245</b>	<b>575 735</b>	<b>-109 094</b>	<b>-15,9%</b>
Zaporizhzhia	170 381	156 243	138 066	-32 315	-19,0%
Mykolayiv'ska	118 973	113 997	107 398	-11 575	-9,7%
Odesa	281 913	275 412	265 307	-16 606	-5,9%
Kherson'ska	113 562	65 593	64 964	-48 598	-42,8%
<b>East</b>	<b>825 916</b>	<b>705 870</b>	<b>660 259</b>	<b>-165 657</b>	<b>-20,1%</b>
Dnipropetrov'ska	341 862	339 784	322 890	-18 972	-5,5%
Donetsk	167 958	105 511	90 436	-77 522	-46,2%
Luhansk	55 234	27 050	23 408	-31 826	-57,6%
Kharkiv'ska	260 862	233 525	223 525	-37 337	-14,3%
<b>Ukraine total</b>	<b>4 230 358</b>	<b>4 041 976</b>	<b>3 906 174</b>	<b>-324 184</b>	<b>-7,7%</b>

<sup>271</sup> Compiled according to the data of: Derzhstat. (2022). General secondary education in Ukraine in 2021. Table 7. <https://tinyurl.com/mvs2wz8a>; State Statistics Service (2023). General secondary education in Ukraine in 2022. Table 6. <https://tinyurl.com/yc57hxmm>; State Statistics Service (2024). General secondary education in Ukraine in 2023. Table 6. <https://tinyurl.com/4384e54x>



Number of Teachers in Ukrainian Schools<sup>272</sup>

Region	The number of teachers as of September 1, 2021, persons	The number of teachers as of September 1, 2022, persons	The number of teachers as of September 1, 2023, persons	Change between 2021 and 2023, persons	Change between 2021 and 2023, %
<b>West</b>	<b>154 111</b>	<b>150 925</b>	<b>147 017</b>	<b>-7 094</b>	<b>-4,6%</b>
Volynska	17 792	17 497	16 932	-860	-4,8%
Zakarpattia	19 051	18 582	18 061	-990	-5,2%
Ivano-Frankivska	20 850	20 270	19 926	-924	-4,4%
Lviv	34 009	33 476	33 080	-929	-2,7%
Rivne	19 246	18 889	18 181	-1 065	-5,5%
Ternopil'ska	15 287	14 807	14 230	-1 057	-6,9%
Khmelnitska	15 920	15 584	15 118	-802	-5,0%
Chernivtsi	11 956	11 820	11 489	-467	-3,9%
<b>North</b>	<b>87 294</b>	<b>82 592</b>	<b>80 944</b>	<b>-6 350</b>	<b>-7,3%</b>
Kyiv	27 050	25 106	24 980	-2 070	-7,7%
Zhytomyr	16 439	15 712	15 092	-1 347	-8,2%
Kyivska	21 858	20 986	20 818	-1 040	-4,8%
Sumy	10 498	10 056	9 700	-798	-7,6%
Chernihivska	11 449	10 732	10 354	-1 095	-9,6%
<b>Center</b>	<b>57 947</b>	<b>56 443</b>	<b>54 954</b>	<b>-2 993</b>	<b>-5,2%</b>
Vinnytsia	18 977	18 756	18 164	-813	-4,3%
Kirovohradska	10 720	10 247	9 971	-749	-7,0%
Poltava	14 870	14 630	14 225	-645	-4,3%
Cherkassy	13 380	12 810	12 594	-786	-5,9%
<b>South</b>	<b>63 735</b>	<b>54 067</b>	<b>51 779</b>	<b>-11 956</b>	<b>-18,8%</b>
Zaporizhzhia	16 626	13 867	12 567	-4 059	-24,4%
Mykolayivska	11 386	10 671	10 230	-1 156	-10,2%
Odesa	24 460	23 522	22 835	-1 625	-6,6%
Kherson'ska	11 263	6 007	6 147	-5 116	-45,4%
<b>East</b>	<b>71 668</b>	<b>57 809</b>	<b>55 395</b>	<b>-16 273</b>	<b>-22,7%</b>
Dnipropetrov'ska	28 750	27 312	26 269	-2 481	-8,6%
Donetsk	14 311	8 758	7 852	-6 459	-45,1%
Luhansk	6 076	2 348	2 066	-4 010	-66,0%
Kharkiv'ska	22 531	19 391	19 208	-3 323	-14,7%
<b>Ukraine total</b>	<b>434 755</b>	<b>401 836</b>	<b>390 089</b>	<b>-44 666</b>	<b>-10,3%</b>

<sup>272</sup> Compiled according to data: Derzhstat. (2022). General secondary education in Ukraine in 2021. Table 7. <https://tinyurl.com/mvs2wz8a>; State Statistics Service (2023). General secondary education in Ukraine in 2022. Table 6. <https://tinyurl.com/yc57hxmm>; State Statistics Service (2024). General secondary education in Ukraine in 2023. Table 6. <https://tinyurl.com/4384e54x>

