

savED

War & Education.

How a year of the full-scale invasion affected Ukrainian schools



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About the research

The research was conducted by Cedos think tank at the request of the savED charitable foundation with the support of the International Renaissance Foundation. This report reflects the position of the authors and does not necessarily reflect the position of the International Renaissance Foundation.

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savED is an international charitable foundation established in 2022 to help restore children's access to education after the war by rebuilding infrastructure, arranging shelters, creating school development strategies, developing programs and providing educational activities for children. The Foundation was founded by former Minister of Education and Science Anna Novosad together with the GoGlobal Education Foundation. Website: saveschools.in.ua

The International Renaissance Foundation is one of the largest Ukrainian charitable foundations that has been helping to develop an open society based on democratic values in Ukraine since 1990. Since then, the Foundation has supported about 20,000 projects worth more than 200 million USD. The Foundation was founded by philanthropist George Soros and is part of the Open Society Foundations network. Website: irf.ua

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List of abbreviations

AR	Autonomous Republic
IDP	Internally displaced person
EU	European Union
GSEI	General secondary education institution
AFU	Armed Forces of Ukraine
MoES	Ministry of Education and Science of Ukraine
NBU	National Bank of Ukraine
NUS	New Ukrainian School
RMA	Regional Military Administration
UN	United Nations Organization
UNDP	United Nations Development Program
RF	Russian Federation
TOT	Temporarily occupied territory
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Emergency Fund

Research methodology

The purpose of the study was to find out how the full-scale war affected access to general secondary education, in particular in hromadas¹ that were in the combat zone or under occupation; what is needed to restore this access; and possible ways to address these needs depending on the scale and nature of the war-related impact.

The objectives of the study were:

- to collect and systematise data on the scale of damage to the educational infrastructure in the sector of general secondary education in Ukraine;
- to find out how access to education is ensured for students of general secondary education;
- to identify and specify the educational and infrastructural needs of schools in hromadas affected by hostilities or occupation, and to find out how these needs can be met;
- to identify and try to classify and systematise regional features in terms of the scope and scale of assistance needed to restore educational infrastructure due to the specifics of military operations in the region;
- to propose solutions to restore access to education in hromadas (hard and soft solutions).

The research consisted of three components: a quantitative nationally representative survey of parents of school-age children, hromada-based case studies, and secondary data analysis.

National survey of parents

To find out how the full-scale invasion has affected students' access to education, how parents are involved in their children's education, and what challenges children and parents face during their studies, we conducted a national survey of parents.

¹ Territorial community (hromada) is a unit of basic level of the administrative division, that includes territories of one or several settlements, has self-government and provides public services. Hromadas are responsible for providing access to preschool, secondary and extracurricular education, they own schools and manage school network, fund them (with state support) and employ school principals.

The survey was conducted by Info Sapiens company from December 20, 2022 to January 24, 2023 among parents of school-age children. Using the CAPI² method of face-to-face interviews, 2,045 respondents were interviewed at their places of residence. Quotas were set by gender and age of children (if there were two or more children in the family, the child to be interviewed was either randomly selected or according to the quotas). The sample is representative of the region and size of the settlement of pre-war residence, gender, and age of children. The theoretical error does not exceed 2.2%.

The survey was conducted in all regions except for the Autonomous Republic of Crimea, Sevastopol, Luhansk, Donetsk and Kherson oblasts³. 203 interviews were conducted in the territories where military operations are (were) conducted or which are (were) occupied by the Russian Federation.

Case studies

In order to study in detail the needs of schools in hromadas and ways to meet these needs, as well as to classify and systematise their regional characteristics, we conducted a case study analysis, which was based on in-depth interviews.

The subject of the analysis was the regions that were under military operations and were partially occupied and then fully or partially liberated. Three oblasts were selected—Kyiv, Chernihiv, and Kharkiv—because the hostilities and occupation were of a different nature and lasted for different amounts of time, liberation took place at different times, and restoration has its own specifics.

In each oblast, 2 hromadas were selected, including those which savED is already working with to restore access to education. In order to represent different experiences, we selected the following hromadas:

- Kyiv and Chernihiv oblasts: hromadas that were under occupation or in the area of active hostilities in February–March 2022;
- Kharkiv oblast: one hromada that was partially under occupation in February–September 2022 and regularly subject to hostilities, and one hromada that received many IDP students but did not experience any damage.

² Computer-assisted personal interviewing

³ Regions in which all or most of the territory is occupied or which are dangerous for interviewers

We selected two schools in each of the hromadas (Table 3). In Kyiv and Chernihiv oblasts, the schools were selected by savED among the partner institutions which the organisation is already working with to restore access to education. In Kharkiv oblast, schools were selected by hromada representatives based on the criteria provided. In each school, 4 in-depth interviews were conducted with principals, secondary school teachers, primary school teachers, and representatives of parental committees. For recruiting informants, we first obtained the principals' contacts, and then got the contacts of teachers and parents from them.

In each hromada, we also interviewed representatives of local education authorities. Apart from that, we conducted 3 additional interviews with principals of other schools in selected hromadas in Kyiv and Kharkiv oblasts. In order to explore the role of regional authorities in restoring access to secondary education, we conducted in-depth interviews with representatives of Chernihiv and Kharkiv RMAs.

Secondary data analysis

In order to analyse the damage to the infrastructure of general secondary education, the need for its restoration, and the number and displacement of students and teachers, we used data from the Ministry of Education and Science of Ukraine (hereinafter—MoES), Chernihiv, Kyiv, and Kharkiv RMAs (since these oblasts are also the subject of the case study), obtained through public information requests.

We analysed the following data collected by both the MoES and RMAs:

- the extent of damage to general secondary education institutions in Ukraine;
- the number of students and teachers staying abroad;
- the number of students and teachers who are outside the oblasts within Ukraine;
- the number of IDP students;
- availability of shelters in schools;
- data on school buses: the number of destroyed, damaged, transferred for evacuation, left in the occupied territories and stolen by Russians, as well as the need for school buses;
- modes of education (distance, mixed, in-person/classroom-based) used for the educational process;

- the number of students in external and family forms of education.

In addition, we also analysed data collected only by RMAs:

- the need for technical training tools for teachers;
- the number of renovated educational institutions in particular oblasts;
- the number of students and teachers who have returned from abroad.

These data characterise the situation at the beginning of the school year 2022/2023, as well as in December 2022, January or February 2023.

Research limitations

At the time of reporting, the war is still ongoing, the number of damaged educational facilities is constantly growing, and students and teachers continue to relocate. Therefore, the data described and analysed are relevant at the time of the study and may change as events unfold.

The study does not cover the experience of specific categories of students in Ukraine, including children with special educational needs and children from ethnic minorities and indigenous communities.

Limitations of the national survey of parents:

- Since the interviews were conducted with respondents who were in Ukraine at the time of the interview, the sample did not include parents of school-age children who left the country after February 24, 2022, due to the war.
- Some of the questions related to the period since the beginning of the full-scale invasion (i.e., more than 10 months before the interview). In this regard, the accuracy of the answers could be affected by the fact that it was difficult for parents to recall the events and circumstances that occurred during this period, which was characterised by stress and a high concentration of significant events.
- Parents' responses and ratings could depend on their level of involvement in their children's education.

- Parents could give socially acceptable answers to questions about their involvement in their children's education and their children's psycho-emotional state.
- Although the survey asked parents to estimate the number of school days missed since the beginning of the invasion, these data do not allow drawing conclusions about learning losses. Measuring learning losses is a task for future comprehensive studies that include subject-specific tests of knowledge, skills, and competencies.

Limitations of the case studies:

- Given the way the cases were chosen, the selection of schools could have been biased toward "exemplary" institutions, such as those with the most proactive and committed leadership and the best student performance. We also had no influence on the selection of teachers and parents: since this was done by the principals, their choice could have been shifted to more active representatives of these categories.
- With the case studies, we aimed to show the different experiences and needs of schools depending on the region and whether they were under occupation or in the combat zone. However, this does not describe the experience of all schools in similar conditions. In addition, we conducted interviews in relatively small hromadas, so the proposed solutions in the context of restoration may not be relevant to larger hromadas.

Limitations of the secondary data analysis:

- The data on different indicators used in the study relate to different months (December 2022, January or February 2023), as the rate of change, methods of collection and modes of access to these data are different.
- Some data were collected only at the oblast or hromada level. Not all oblasts collected them, nor did the MoES. For example, the MoES does not collect data on the return of teachers and students from abroad. At the oblast level, Chernihiv and Kyiv RMAs do, but Kharkiv RMA does not have such data.
- The same data provided by the RMAs and the MoES for the same period may differ. We have not been able to find out what

the reasons for this difference are, but we can assume that one of them may be the human factor in collecting and aggregating data (data is usually aggregated before being transferred to each subsequent level of government).

Context

General secondary education system in Ukraine

The state guarantees access to tuition-free complete general secondary education, which is also compulsory for all children living in Ukraine. After completion of basic secondary education⁴ (9 years of study), there are three ways to continue education: in grades 10-11 at school or simultaneously with obtaining a profession in vocational education institutions (vocational schools, lyceums) or professional pre-higher education institutions (colleges, technical schools).

At the beginning of the 2021-2022 academic year, there were about 14,000 general secondary education institutions in Ukraine, with more than 4 million students⁵. The school network in Ukraine is very extensive. There are 60% of schools in villages, but only 28% of students attend them. Schools in the network can vary significantly in terms of class size, access to resources, quality of educational environment, and availability of qualified teachers. In particular, schools in rural areas are more likely than those in urban areas to have poor educational environment, a lack of qualified teachers, and very small numbers of students. In order to provide rural students with better access to quality secondary education, hub schools were established in 2017, where children from surrounding hromadas are brought by bus. As of June 2022, about 9% of schools were hub schools⁶.

Most schools in Ukraine (97%) are owned and operated by local hromadas⁷. They are responsible for financing schools: maintaining the premises, creating educational environment, and paying school staff. However, to pay teachers, local budgets receive funds from the state budget in the form of an educational subvention. These funds are allocated according to the formula that takes into account the number of students, as well as the size of classes and the number of teaching hours in accordance with the state standards. Since the outbreak of the full-scale war, education subvention has decreased. For 2023, 87.5 billion UAH of educational subvention is envisaged, which is 20% less than the previous year.

⁴ School education is divided into 3 levels of education: primary education (grades 1-4), basic secondary education (grades 5-9), specialized secondary education (grades 10-11)

⁵ State Statistics Service. General secondary education in Ukraine in 2021. <https://www.ukrstat.gov.ua/>.

⁶ <https://mon.gov.ua/ua/osvita/zagalna-serednya-osvita/oporni-shkoli>.

⁷ State Statistics Service. General secondary education in Ukraine in 2021. <https://www.ukrstat.gov.ua/>.

In 2017, Ukraine launched a comprehensive school reform, the New Ukrainian School, which includes reforming the content of education, introducing a child-centred approach to learning, changing the form and methods of knowledge assessment, reforming education management with the distribution of responsibilities in favour of the local level (hromadas), and modernising school infrastructure.

In Ukraine, there is a significant gap in learning outcomes depending on the type and size of the settlement and the type of school. On average, students in rural schools are 2.5 years behind their peers in large cities, according to the results of the international PISA assessment (2018)⁸. The settlement size is also related to access to selective schools, lyceums and gymnasiums, whose graduates, on average, perform better on standardised entrance tests than students of comprehensive schools⁹.

At the start of the full-scale invasion, education in Ukraine had not yet recovered from the negative effects of the COVID-19 pandemic. While no studies have yet been conducted in Ukraine on the learning losses caused by school closures and the transition to distance learning, research in other countries¹⁰ suggests that the pandemic has worsened educational outcomes, especially for children from families with lower socioeconomic status. The full-scale war has exacerbated these problems in Ukrainian education.

Russia's war against Ukraine

Russia's war against Ukraine began in 2014, when it occupied the Autonomous Republic of Crimea, Sevastopol, and parts of Luhansk and Donetsk oblasts.

Russia's full-scale invasion of Ukraine, the impact of which is the subject of this study, began on February 24, 2022. The hostilities intensified significantly compared to 2014–2021 and expanded to Kyiv, Chernihiv, Zhytomyr, Kharkiv, Sumy, Zaporizhzhia, Kherson, and Mykolaiv oblasts. In the first month of the full-scale invasion, the entire Kherson oblast,

⁸ Mazorchuk M., Vakulenko T., Tereshchenko V., Bychko H., Shumova K., Rakov S., Gorokh V. (2019) National report on the results of the international study of the quality of education Pisa-2018. Ukrainian Center for Educational Quality Assessment (in Ukrainian) http://pisa.testportal.gov.ua/wp-content/uploads/2019/12/PISA_2018_Report_UKR.pdf, p. 80.

⁹ Mazorchuk M., Vakulenko T., Tereshchenko V., Bychko H., Shumova K., Rakov S., Gorokh V. (2019) National report on the results of the international study of the quality of education Pisa-2018. Ukrainian Center for Educational Quality Assessment (in Ukrainian) http://pisa.testportal.gov.ua/wp-content/uploads/2019/12/PISA_2018_Report_UKR.pdf, p. 80.

¹⁰ For instance: 1) Engzell P, Frey A, Verhagen MD. Learning loss due to school closures during the COVID-19 pandemic. *Proc Natl Acad Sci U S A*. 2021 Apr 27;118(17):e2022376118. doi: 10.1073/pnas.2022376118. PMID: 33827987; PMCID: PMC8092566.

as well as the north of Chernihiv and Kyiv oblasts, a significant part of Kharkiv, Sumy and Zaporizhzhia oblasts, and part of Mykolaiv oblast were occupied.

In early April, parts of Kyiv, Chernihiv, Zhytomyr, and Sumy oblasts were de-occupied. In March and April, some hromadas in Kharkiv oblast were also de-occupied. As of the beginning of June, 20% of Ukraine's territory was under occupation, which amounted to 125,000 square metres¹¹. In the first half of September, most of the Kharkiv oblast was de-occupied¹². In early November, part of the Kherson oblast on the right bank of the Dnipro River, including Kherson, was liberated, as well as most of the occupied territories of Mykolaiv oblast. In 2022, 40% of the territories occupied after February 24 were liberated¹³.

Since the beginning of the full-scale invasion, missiles and unmanned aerial vehicles have been regularly fired at the entire territory of Ukraine. Artillery shelling has also taken place in areas close to the combat zone and the border with Russia. Since October 2022, critical (primarily energy) infrastructure has been targeted, leading to electricity shortages. As a result, in many regions of Ukraine, residents faced scheduled and emergency power outages, sometimes lasting several days, which led to interruptions in mobile and Internet communications, central heating and water supply.

As of November 30, 2022, the Ministry of Reintegration of the Temporarily Occupied Territories includes¹⁴ 329 hromadas in 9 oblasts in the list of hromadas located in the areas of military (combat) operations or under temporary occupation, encirclement (blockade): Donetsk, Kharkiv, Dnipro, Luhansk, Zaporizhzhia, Kherson, Mykolaiv, Sumy, and Chernihiv oblasts. As of January 2023, part of Kherson oblast on the left bank of the Dnipro River, the southern part of Zaporizhzhia oblast, almost all of Luhansk oblast, part of Donetsk oblast, and a small part of Kharkiv oblast remain occupied.

¹¹ Slovo i діло. Russia occupied about 20% of Ukrainian territory and fired 2,500 missiles. <https://www.slovoidilo.ua/2022/06/02/novyna/polityka/rosiya-okupuvala-20-ukrayinskoyi-terytoriyi-vy-pustyla-25-tysyach-raket-zelenskyj>.

¹² Suspilne. Almost the entire Kharkiv region has been de-occupied — Zelenskyi. <https://suspilne.media/282411-majze-vsja-harkivska-oblast-deokupovana-zelenskiij/>.

¹³ Radio Svoboda. Zaluzhnyi told how much territory of Ukraine the Armed Forces recaptured in 2022. <https://www.radiosvoboda.org/a/news-zalyzhnyy-povernennya-terytorij/32204260.html>.

¹⁴ Ministry of Reintegration of the Temporarily Occupied Territories. The list of hromadas in the areas of hostilities, in the TOT and those surrounded by them has been updated.

Part 1. Destruction of educational infrastructure

The full-scale war has affected the school experience of all Ukrainian students and teachers, and one of its most visible and severe consequences is the damage and destruction of school buildings and the educational environment: furniture, equipment, teaching supplies, etc. This part will discuss the scale and nature of the school damage, taking into account the regional characteristics of the school network and the duration of the hostilities and/or Russian occupation.

According to the MoES, as of January 20, 2023, a total of¹⁵ 3,051 educational institutions were affected, of which 420 were completely destroyed. Almost half of them are secondary schools. Thus, as of January 23, 2023, 1,259 schools were damaged, and 223 were completely destroyed. According to the Methodology for Inspection of Buildings and Structures Affected by Emergencies, Hostilities and Terrorist Acts, approved by the Ministry for Communities and Territories Development of Ukraine, a building is considered damaged if it is up to 40% damaged and requires current or major repairs. If more than 40% of the building is damaged, it is considered destroyed and requires major repairs, reconstruction or demolition¹⁶.

The extent of damage to school infrastructure varies significantly from region to region. Overall, 11% of all schools operating in the country as of the 2021/2022 school year were affected. The largest share of schools was affected in Donetsk (67%), Kharkiv (43%), and Luhansk (41%) oblasts. Together, the affected schools in these three oblasts account for half of all damaged and destroyed schools in the country.

In quantitative terms, most affected schools are in Donetsk (328) and Kharkiv (304) oblasts, with a significant number of schools—more than 100—also affected in Mykolaiv, Kyiv, Luhansk, Kherson, and Zaporizhzhia oblasts (97 schools).

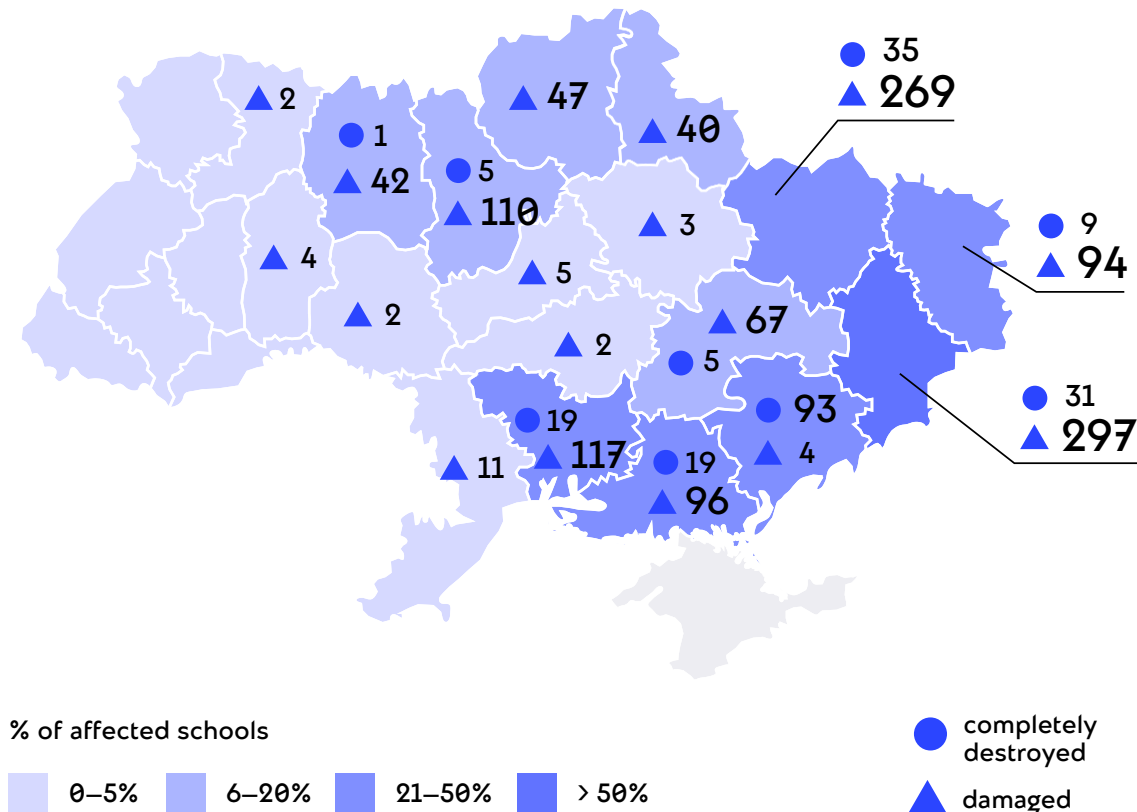
In contrast, other oblasts, primarily in the west of the country, such as Chernivtsi, Ternopil, Lviv, and Ivano-Frankivsk, have suffered little or

¹⁵ MoES. Overview of the current state of education and science in Ukraine in the context of Russian aggression (as of January 2023). <https://drive.google.com/file/d/19UxyvPVEXMVfoUJcuxNirP1UWiXgSX/view>.

¹⁶ Ministry for Communities and Territories Development of Ukraine. Methodology for inspecting buildings and structures damaged as a result of emergencies, hostilities and terrorist acts. https://www.minregion.gov.ua/wp-content/uploads/2022/05/metodyka_obstezhennya_65_vid_28_04_22.pdf.

no loss of educational infrastructure. However, students and teachers throughout Ukraine are also affected by the war due to air raids and power outages.

The oblasts considered in this study have different scale and nature of losses in educational infrastructure, in accordance with the different nature and duration of hostilities and temporary occupation.

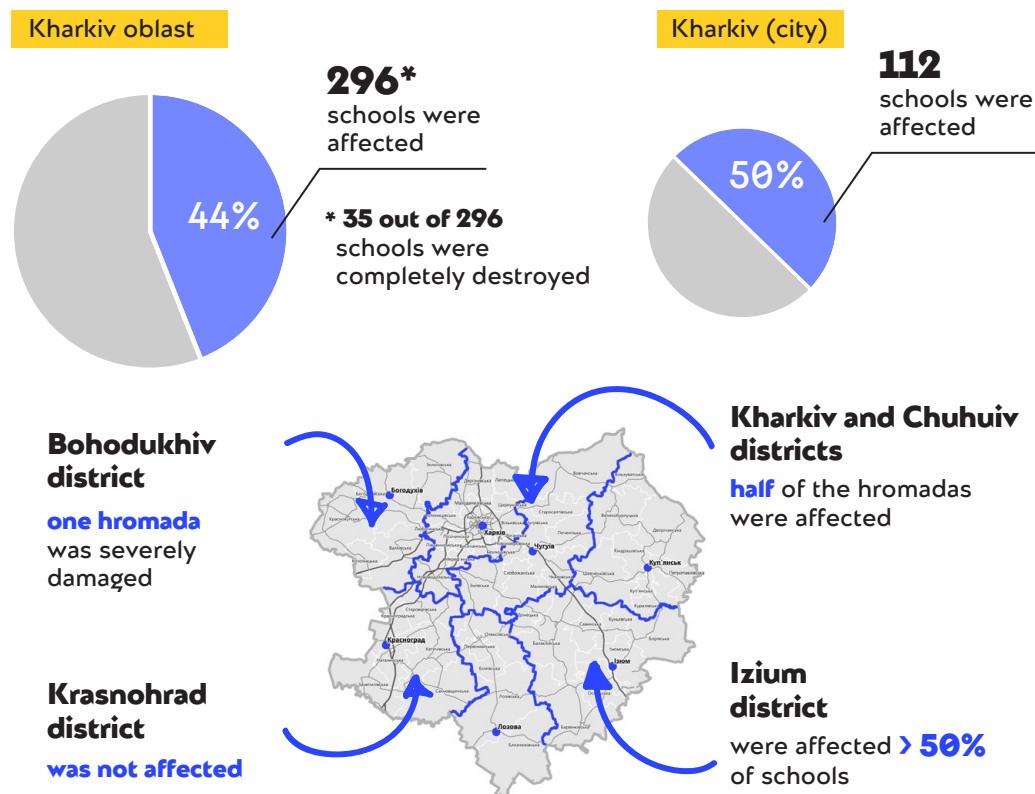


1.1 Regional characteristics of the destruction of educational infrastructure

Kharkiv oblast

Active hostilities in the oblast, including rocket and artillery attacks and troop movements, continued from the first day of the full-scale invasion until the time of writing. Part of the oblast was under temporary occupation for 6 months. The city of Kharkiv was subjected to heavy artillery shelling during this period, which continues to this day on a somewhat smaller scale, as well as rocket attacks.

In Kharkiv oblast, 296 schools were affected, or 44% of the oblast's schools. Of these, 35 schools were completely destroyed. In 23 of the 55¹⁷ hromadas, more than half of the schools were damaged, and in 9 of these hromadas, every school was damaged. In Kharkiv, the second largest city in Ukraine, half of the schools were affected — 112. The destruction and damage is unevenly distributed across the region: in , all hromadas were severely damaged (more than half of the schools were affected), in Kharkiv and Chuhuiv districts, half of the hromadas were affected, while in Bohodukhiv district, one hromada was severely damaged, and in Krasnohrad district, none.



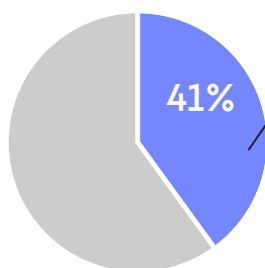
¹⁷ The data for one of the hromadas was incorrect, so it was excluded from the analysis.

Chernihiv oblast

From late February to early April 2022, active hostilities took place in the region, and part of its territory was occupied for a month. Heavy fighting took place for the city of Chernihiv, and the city was subjected to intense shelling. Hromadas located on the border with the Russian Federation have been under artillery fire throughout the full-scale war.

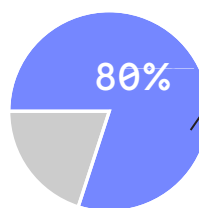
The hostilities affected 41% of schools in the oblast—70 damaged and 3 destroyed schools. Given the geography of the hostilities, the damage is unevenly distributed across the region. Schools in the city of Chernihiv suffered the most—27 out of 34 schools, two of which were completely destroyed. Of the 20 hromadas in the oblast, 7 had more than half of their schools damaged. It is worth noting, however, that 12 hromadas in the region have 5 or fewer schools, so even if 1 or 2 schools in a hromada were affected, their share is significant for the hromada.

Chernihiv oblast



70 schools were affected
3 schools — were completely destroyed

Chernihiv (city)



27 out of **34** schools were affected
2 schools — were completely destroyed



Of the **20** hromadas in the oblast — **7** had more **> 50%** of their schools damaged

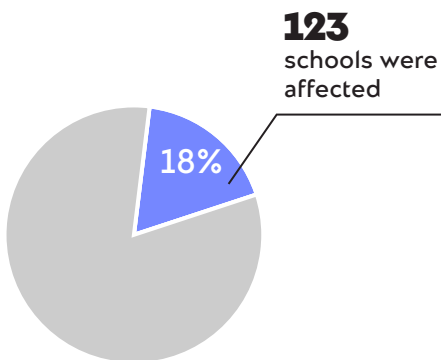
12 hromadas in the region have 5 or fewer schools, so even if 1 or 2 schools in a hromada were affected, **their share is significant for the hromada**

Kyiv oblast

In February–March 2022, active hostilities took place in the oblast, and part of the territory was occupied for a month. Since April 2022, hostilities in the region have ceased, but the oblast, like the rest of Ukraine, still suffers from missile attacks. Active hostilities took place in 4 districts out of 7 in the north of the oblast. In total, 18% of schools in the oblast were damaged—a relatively smaller share than in the other two oblasts, but in quantitative terms, there are many of them—123 institutions. The largest scale of destruction of educational infrastructure was in Vyshhorod and Bucha districts, where schools in almost all hromadas were affected. In total, 27 of the 68 hromadas in the oblast have damaged schools, of which 13 have more than half of their schools damaged (almost all of these hromadas are from the above-mentioned two districts).

The level of destruction of the educational infrastructure in each oblast is related to the duration and scale of the hostilities. However, even where active hostilities and occupation lasted for 4–6 weeks, there are hromadas where most or all schools have been affected, and the damage is very significant. In each of the oblasts studied, there are hromadas where students do not have or will not have the opportunity to study in person because schools have been severely damaged, and there are no other institutions to temporarily transfer all or most children to.

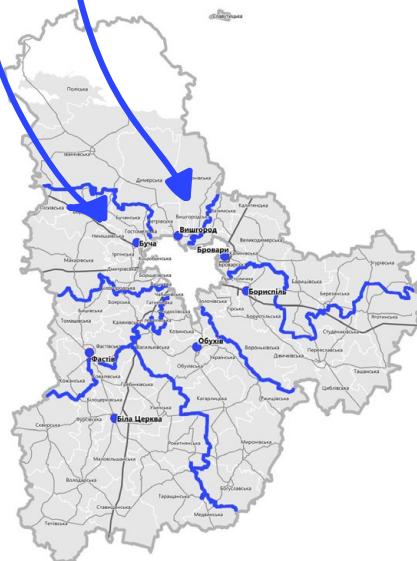
Kyiv oblast



In total, **27** of the **68 hromadas** in the oblast have damaged schools, of which 13 have **> 50%** of their schools damaged (almost all of these hromadas are from the above-mentioned two districts)

Vyshhorod and Bucha districts:

schools **in almost all hromadas** were affected





Ploske, Kyiv oblast



Novyi Bykiv, Chernihiv oblast



1.2 Sources and nature of the destruction of school buildings and educational environment

According to the study participants, the causes of destruction and losses in the educational infrastructure were military operations during which schools were directly targeted or suffered collateral damage, as well as looting.

The main causes of destruction described during interviews were direct shell or bomb hits, shrapnel and fragments of shells or bombs, and fire.

The most extensive destruction was caused by direct shell hits. They resulted in complete destruction of school buildings (either as a whole or in one of their parts).

“ We had an air strike and several bombs were dropped on the buildings of 2 schools. So they are just completely gone.

Representative of the hromada education department, Chernihiv oblast

In one of the hromadas, a school building was destroyed as a result of a large-scale fire set by the Russian troops:



“ The village was occupied from March 8 to March 29. And on March 8, right when the Russian army entered the village, they occupied our school as a headquarters, as a place to live, as a shelter. And they stayed there all the time, treating their wounded, living there. And then, when they left the village on the 29th, either they set it on fire or mined it, we do not know for sure, but the school was destroyed, unsuitable for education, for use at all. The first floor is burned out, and on the second floor some classrooms are burnt out, and some are smoked, it is impossible to enter and use them.

Principal, Kyiv oblast

The schools in the hromadas studied in this research suffered damage of varying nature and extent.

Types of damage:

- destruction of the roof (holes, cracks, complete destruction);
- destruction of structural floors and walls (holes, collapse, cracks);
- destruction of communications: water supply, sewerage, heating system, electrical wiring;
- destruction of classrooms and shared spaces (broken windows, doors, lighting, damaged/destroyed by debris, fire, smoke or water; wall, floor, ceiling coverings and property).

In almost every school in the study, regardless of the cause or extent of the damage, windows and doors, the most fragile elements of buildings, were damaged. In some schools, all or most windows were broken.

Even in cases where the school building itself was not critically damaged, school property, particularly in classrooms, may have been severely affected. First of all, there were shell fragments, as well as broken windows, shards of which destroyed furniture, equipment, educational supplies, and lighting elements. Almost every school we have studied has such losses, although their scale varies. Heavily damaged schools require not only major repairs to the premises but also complete replacement of furniture, appliances and equipment.

For example, in Kharkiv oblast, at the beginning of the 2022/2023 school year, classrooms in 258 schools were damaged. In particular, in the

physics, chemistry, biology, and geography laboratories of 176 schools, 10,815 units of teaching aids were damaged, destroyed, or are considered missing, including 9

969

pieces of laboratory equipment

1684

computers

91

interactive whiteboards

219

projectors

287

TV sets

7565*

pieces of other electronic equipment

* including 1,514 pieces of equipment purchased to implement the NUS reform in recent years

Secondary damage should also be mentioned, which can be as severe as direct damage in terms of scale and cost. For example, classrooms are flooded due to roof leaks, the heating system cannot be used due to minor leaks, and in combination with broken windows, this causes water to freeze in the heating system and its subsequent destruction.



In addition, not all damage is visible during the initial inspection: Some of it becomes apparent over time, when the weather changes or the heating season begins, and we have to urgently seek funds for additional repairs or switch the school to distance learning:

“

We are still [in December 2022] finding splinters that have flown into classrooms, even the walls are cut. It seems to be a small hole in the window, but the walls are cut throughout the classroom. So it is unknown what kind of weapon was used, but the damage is significant.

Principal, Kyiv oblast

School buses are also among the school property that was damaged or lost during the occupation and hostilities. A total of 1,874 school buses were destroyed, damaged, lost during the occupation, transferred for evacuation or for the needs of the Armed Forces. In particular, there are 151 of them in Kharkiv oblast, 25 – in Chernihiv oblast, and 62 – in Kyiv oblast¹⁸. During the occupation, according to the interviewed educators, school buses were also looted:

“

The occupants dismantled our bus, basically. They ripped out all the electronics, batteries, removed all the seats, removed the mirrors, broke the glass—at the front and at the side.

Principal, Chernihiv oblast



¹⁸ According to MoES data as of January 1, 2023. The data from the studied oblasts on lost school buses are somewhat different.

In general, several hromadas in all surveyed oblasts experienced looting in various forms. The stolen, damaged or destroyed property includes computer equipment, sports and travel equipment, tools from school workshops, cutlery and utensils, food, detergents, and personal belongings.

Thus, even in cases where school buildings and grounds were not damaged or not severely damaged, some schools have lost property due to hostilities and looting, which will limit the possibility of returning to full-time education even when the security situation allows it or will reduce its quality.

Documents and archives of schools and education departments were also destroyed or lost during the hostilities and temporary occupation (evidence from Kharkiv oblast).

Finally, the greatest losses suffered by schools during the full-scale invasion of Russia are human losses. In the hromadas we studied, there are dead teachers (Kharkiv and Chernihiv oblasts), parents of students (Kyiv oblast), and students¹⁹ (Chernihiv and Kyiv oblasts):



I think our school suffered the most. Because we lost three students. We lost children who tried to evacuate with their families on their own.

Principal, Chernihiv oblast



It was very difficult, especially after the teachers had been killed. It was very... very traumatic. I thank God that the children are all safe and alive... Many parents were killed during the hostilities.

Principal, Kharkiv oblast

¹⁹ In total, as of January 18, 2023, according to the Prosecutor General's Office of Ukraine, 459 children were killed and 909 injured as a result of Russia's full-scale invasion of Ukraine.

Conclusions

- Schools suffered human losses — teachers, students and their parents were killed during the hostilities and/or Russian occupation.
- During the full-scale war, 11% of Ukrainian schools were affected, most of them in the eastern and southern regions of the country. More than half of the affected schools are located in Kharkiv, Donetsk, and Luhansk oblasts.
- Districts and hromadas within the three oblasts studied have been affected to varying degrees, and in each oblast — even where active hostilities lasted 4–6 weeks — there are districts and hromadas where the density of damage is very high, with between 50 and 100% of schools affected.
- Frequent types of damage to school buildings include destruction of roofs, windows and doors, as well as destruction of the educational environment through shrapnel and fire. In many schools, heating systems, water supply, and sewage systems were damaged.
- Not all damage is visible during the initial inspection, and some of it is exacerbated over time by weather conditions, leaving schools vulnerable even many months after the end of hostilities.
- The educational environment has suffered not only from the destruction caused by the fighting, but also from looting, which has caused schools to lose equipment in particular.

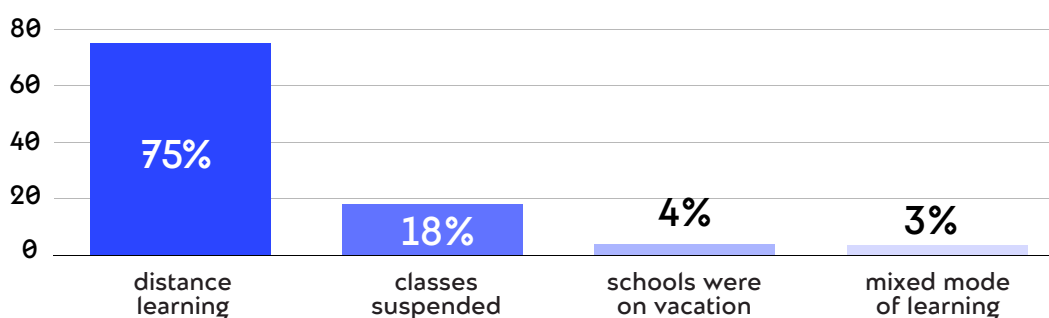
Part 2: The impact of war on the organisation of the educational process

This part describes how the educational process has been going since the beginning of the full-scale invasion during the first 10 months of the year 2022. Here we consider the constraints and challenges faced by teachers and students both at the beginning of the full-scale war and during the first semester of the 2022/2023 school year. We also mention the methods and strategies used by teachers to overcome these difficulties in order to organise the educational process and provide access to quality secondary education.

2.1 Mode of studies

After the beginning of the full-scale invasion on February 24, 2022, MoES recommended that all educational institutions declare a two-week vacation. According to the Ministry, most schools went on vacation, but some worked online. On March 14, the educational process was resumed in 13 oblasts in the mode allowed by the security situation, mostly as distance learning. In 8 oblasts, the educational process was partially resumed, as some of the institutions extended holidays. In 3 oblasts and Kyiv, the educational process was suspended. As of the end of March²⁰, 10,500 schools (75%) were providing distance learning, and 40 schools were providing a mixed mode of learning. At the same time, more than one fifth of schools were closed: 4% of schools were on vacation, and 18% of schools suspended classes.

Figure 1. Organisation of the educational process as for March 26, 2022



²⁰ MoES. Overview of the current state of education and science in Ukraine in the context of Russian aggression (March 16-26, 2022). https://drive.google.com/file/d/1rqJi1c4vzQAiTYDx82MpapncK_JWZ61/view.

During spring 2022, the situation changed virtually every week, as the number of schools where classes were suspended decreased. As of April 2²¹, 83% of schools were working in distance learning mode, and 60 schools were working in a mixed mode. In 8% of schools, the educational process was still suspended. As of April 23²², 88% of schools were working in distance learning mode, 133 in mixed mode, and 24 in full-time mode. Vacations were prolonged in 310 institutions, and the educational process was suspended in more than 4% of institutions.

According to the MoES, as of May 7²³, 3,752,792 students had joined learning, which amounted to 89% of the total number of students in the 2021/2022 school year. The situation, according to the MoES, had been changing quite dynamically, but it can be assumed that as of early May, 11% of students, or 412,807 people, had not yet returned to school. At the same time, in late April and early May, some oblasts began to end the school year early because of occupation and active hostilities in the region (for example, in Zaporizhzhia and Kherson oblasts). As of May 20, three schools in Mykolaiv oblast were still on vacation and in 74 schools in the east and south of the country educational process was suspended²⁴.

Since classes had been suspended for at least 2.5 weeks, many schools continued the school year in June. As of June 9²⁵, 61% of schools had completed the school year²⁶ and 28% were still in the process of completing the educational process. By the end of June, 92% of schools had completed the educational process, and 91% of students had completed the school year.

The educational process in the new 2022/2023 school year began in 12,996 schools. The mode of education was determined by the security situation in the region, the availability of a school's own shelter, and the condition of the school building. According to the MoES, as of December 2022, one-third (36%) of schools were providing distance learning,

²¹ MoES. Review of the current state of education and science in Ukraine in the context of Russian aggression (March 27 - April 2, 2022). <https://drive.google.com/file/d/15bQ4ufQ1wCgBkuoP0LATv56SE6eGcP0E/view?usp=sharing>.

²² MoES. Overview of the current state of education and science in Ukraine in the context of Russian aggression (April 10-16, 2022). <https://drive.google.com/file/d/1zMRhcZ36rkJTn16T51VQn8npLAXAKa1d/view?usp=sharing>.

²³ MoES. Overview of the current state of education and science in Ukraine in the context of Russian aggression (May 1-7, 2022). <https://drive.google.com/file/d/14MRg7IOUrS7wOKguAdR7AgmsAtQ6qF7X/view>.

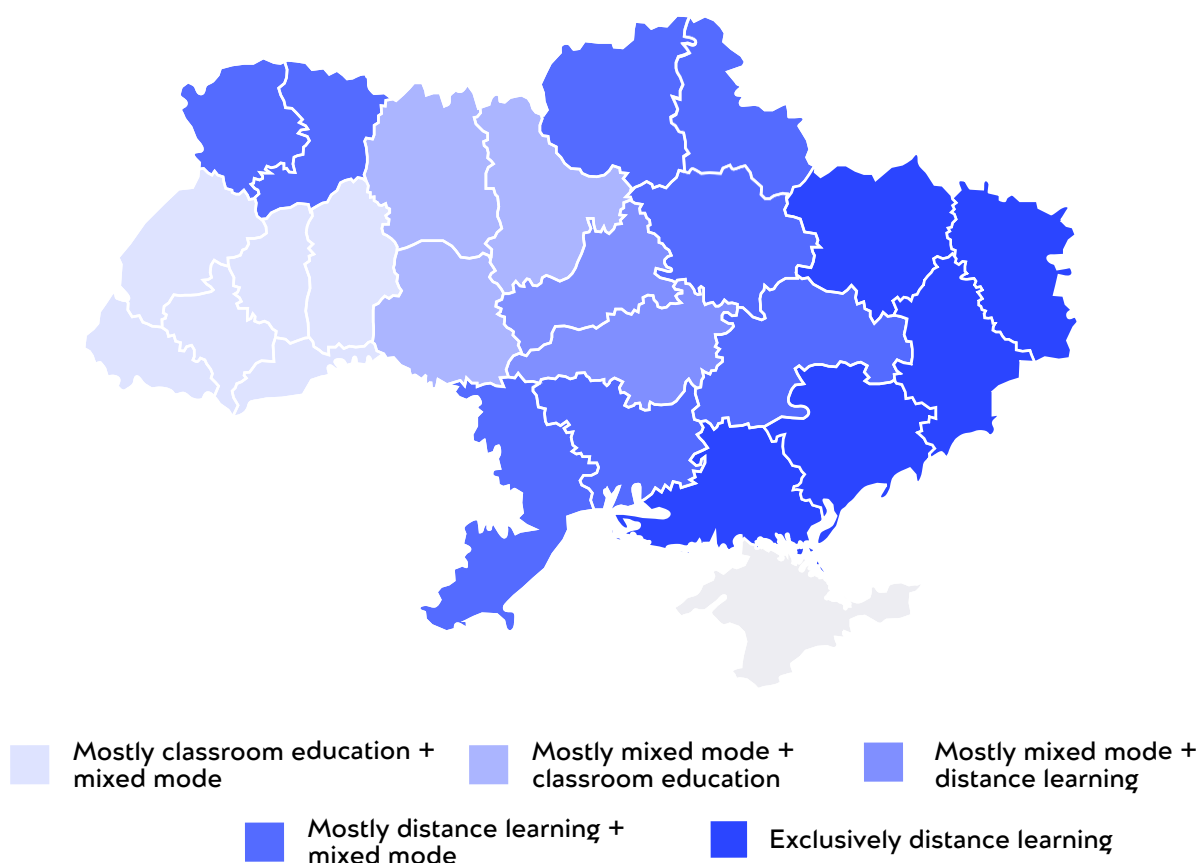
²⁴ MoES. Review of the current state of education and science in Ukraine in the context of Russian aggression (May 16-21, 2022). <https://drive.google.com/file/d/1x76U028ogHftvIScIA6DO0E5EUHJcHWO/view>. MoES. Overview of the current state of education and science in Ukraine in the context of Russian aggression (May 1-7, 2022). <https://drive.google.com/file/d/14MRg7IOUrS7wOKguAdR7AgmsAtQ6qF7X/view>.

²⁵ This period is the traditional end of the school year in Ukraine.

²⁶ MoES. Overview of the current state of education and science in Ukraine in the context of Russian aggression (June 6-11, 2022). <https://drive.google.com/file/d/1FsjZfibbsWz9nV0XaDO41v1QgIR-dYhM/view>.

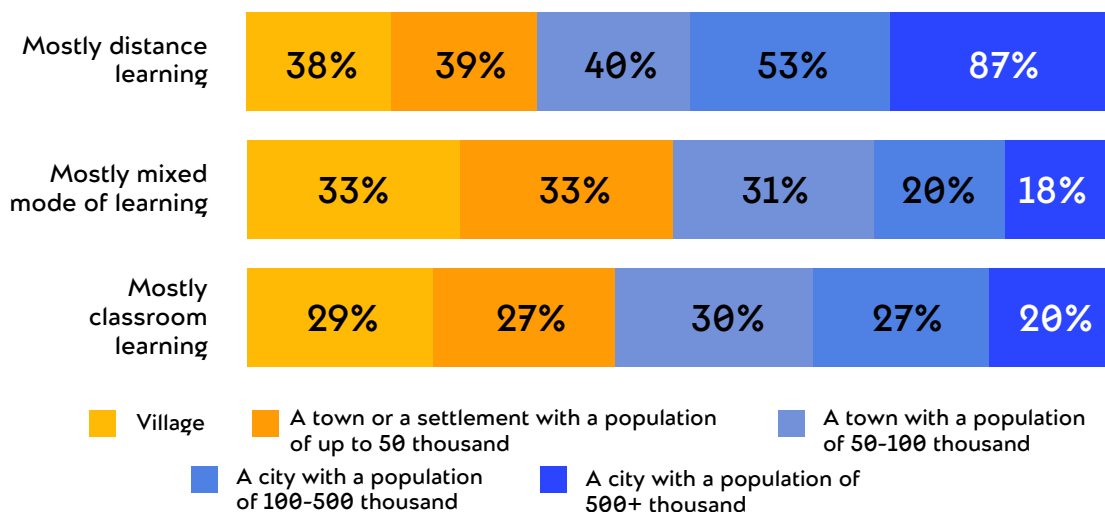
another third (36%) were providing a mixed mode of learning, and 28% were providing learning in classrooms.

Only 5 oblasts provided distance learning exclusively: Donetsk, Luhansk, Zaporizhzhia, Kherson, and Kharkiv oblasts. In particular, Kharkiv oblast decided to introduce distance learning for the entire 2022/2023 school year. In addition, in Dnipropetrovsk and Mykolaiv oblasts, the vast majority of schools (92% and 87% respectively) worked remotely, and almost all the rest worked in a mixed mode. The majority of schools with classroom education were in the west of the country — Ivano-Frankivsk (73%), Lviv (63%), Ternopil (61%), Chernivtsi (54%), and Zakarpattia (48%) oblasts. In the rest of the schools in these oblasts, the educational process was carried out mostly in a mixed mode.



A survey of parents showed that the involvement of students in distance learning also depends on the size of the settlement: in large cities (with a population of more than 500,000), more than half of them study online (61%), whereas in villages it is 38%. At the same time, the situation is the opposite with the mixed mode of learning: the larger the settlement, the lower the percentage of the mixed mode of learning.

Figure 2. "In what mode of education did your child study this school year, i.e. since September 1, 2022?", by the size of a settlement

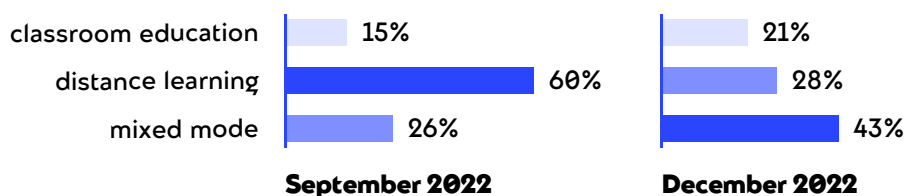


Note: N=2045.

Chernihiv oblast

In Chernihiv oblast, according to Chernihiv RMA, as of September 2022, distance learning began in 235 schools (60%), mixed mode of learning in 105 (26%), and classroom learning in 62 (15%). As of December, the number of schools offering mixed (43%) and classroom (21%) modes of education increased, while the number of schools providing distance education decreased (28%). According to the decision of the Defense Council of the Chernihiv RMA, educational institutions and establishments within 40 km of the border with Russia and Belarus provide education exclusively through distance learning, that covers 13.5 thousand students studying at schools in this area.

Figure 3. Educational modes in Chernihiv oblast

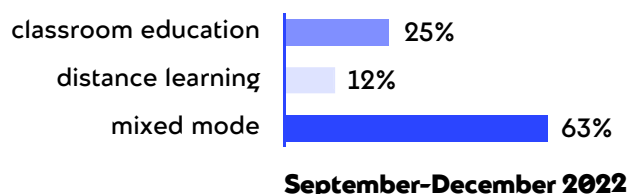


Kyiv oblast

In Kyiv oblast, as of the beginning of the school year, more than half of the schools started the educational process in a mixed mode of studies – 402

schools (63%), a quarter in the classrooms—158 schools (25%), and 12% in distance learning mode—78 schools. As of December 2022, the situation remained unchanged.

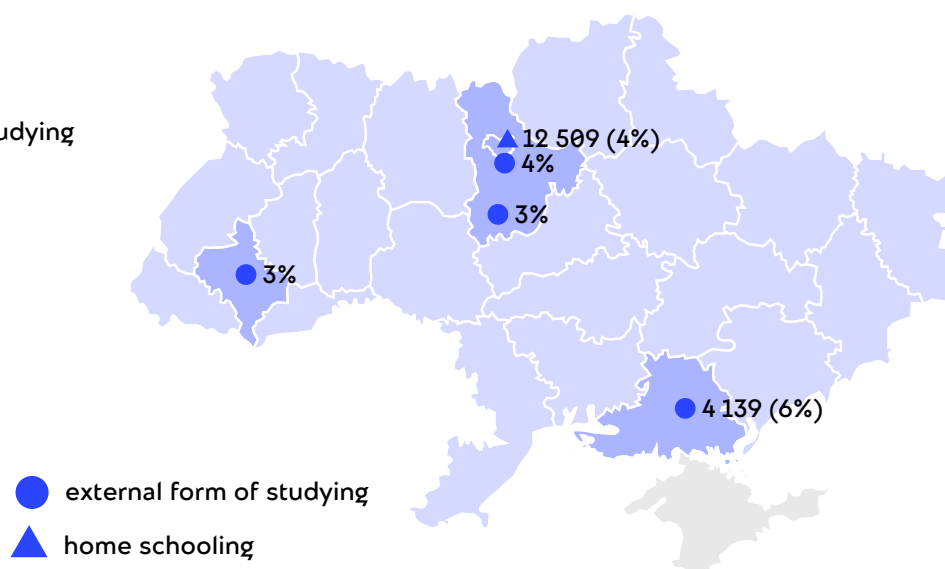
Figure 4. Educational modes in Kyiv oblast



Some Ukrainian students study individually, receiving a curriculum and pedagogical support from the school and undergoing regular knowledge control. According to the MoES, 33,423 students (1%) do external studies²⁷ and another 63,633 (2%) do home schooling²⁸. The largest part of students doing the external studies are in Kyiv (12,509—4%). The largest proportion of students doing home schooling is in Kherson oblast (4,139—6%), Kyiv (4%), Kyiv oblast (3%), and Ivano-Frankivsk oblast (3%). It should be noted that home schooling mode is recommended as one of the options for students who reside abroad. The share of those doing home schooling is only 13% of the total number of children who continued to stay abroad as of December 2022.

33 423 (1%)
external form of studying

63 633 (2%)
home schooling



²⁷ The external mode of education involves independent study of the school curriculum without school attendance. Students take tests once a year and consult with their teachers. According to Ukrainian law, only children who belong to certain categories can switch to externship.

²⁸ The family (home) mode of education involves the independent mastering of the school curriculum by a student under the guidance of parents or guardians school attendance. In this mode of education, parents teach their children the educational material on their own, while teachers draw up an individual curriculum and provide consultations. Assessment of academic achievements takes place at least 4 times a year (at least 3 times a year for students studying according to the State Standard of Primary Education), and if students receive an unsatisfactory grade, they must return to school.

At the beginning of the full-scale invasion in the hromadas that were the focus of the study, the educational process had to be stopped because of active hostilities or occupation. First, forced vacations began, and later in the hromadas of Kyiv and Chernihiv oblasts, it was impossible to carry on with education until April. Education in these hromadas, including distance learning, resumed after the Russian army retreated from Kyiv and Chernihiv oblasts. In the hromadas of Kharkiv oblast that were not in the area of active hostilities, education resumed in late March in a distance learning mode. By contrast, in those hromadas that were in the war zone and occupied, the educational process resumed in mid-May, but also as distance learning.

At the same time, during the interviews, educators mentioned that some teachers, on their own initiative and whenever possible, conducted teaching online or in a classroom until the educational process resumed. Some of these classes took place under intense shelling or occupation, and some teachers held lessons in basements.



Before the start of the 2022/2023 school year, teachers collected applications from parents with their wishes regarding the mode of education. As a result, classes were reorganised according to the chosen mode of education. In the interviews, it was stated that there were fewer people willing to do distance learning. This caused an additional burden for teachers, as they had to call children's parents, and some of them changed their minds one or more times. In addition, according to the teachers, after the start of the school year, some parents changed their minds in favour of classroom education due to power outages.

In the first semester of the 2022/2023 school year, the vast majority of schools in the study area were providing a distance or mixed mode of learning. Classroom education was carried out in three schools in Kyiv oblast. Some of the students did home schooling.

Classroom education

Even if the school had been destroyed or damaged, from the beginning of the 2022/2023 school year, they tried to ensure that primary school students attended classes in person whenever possible. Sometimes, students had to travel on their own or were transported by school buses to another locality. This happened with several educational institutions in Kyiv and Chernihiv oblasts, for example, children were brought to the building of another school, so that they could successfully master basic skills, in particular writing and reading. In some schools, some children were able to join online the lessons held in a classroom. In one school in Chernihiv oblast, teachers held face-to-face meetings or consultations for those who studied remotely but had the possibility to come to the school.



[We] held individual consultations for primary school children. They came to school several days a week, because it is clear [...] that it is simply not realistic to teach the 1st grade online. But there is also a big problem, as there is no shelter here. So, if the air raid alarm sounded, the class teacher had to take the children out to the corridor, the two-wall rule, and the children sat there. This is not a solution, of course. But, unfortunately, there is no other way out.

Principal, Chernihiv oblast



This is confirmed by the results of a survey of parents. According to the survey, since the beginning of the school year, their children have done distance learning (47%) or the mixed (27%) mode of education (Table 9). Among them, more distance learning was used by students of basic (47%) and high (51%) schools, compared to primary (41%) school. Instead, one third of primary school students studied in classrooms (33%), unlike students of basic (24%) and high (19%) school (Table 10).

In one of the schools in Kyiv oblast that partially burned down, school staff and parents worked together to restore the school so that it could reopen full-time as soon as possible: they raised funds for new double-glazed windows, made redecorations, and carried out general cleaning of the debris. According to teachers and parents, it was this joint involvement that allowed the school to reopen for full-time learning in the first semester of the 2022/2023 school year. A representative of the administration of another school in Kyiv oblast mentioned the experience of physical involvement of teachers and parents in the reconstruction of the school as one that made it possible to start full-time education in the first semester of the 2022/2023 school year.



We all worked together: parents, teachers, and concerned villagers, and our Head of the village helped us a lot. As they say, we rolled up our sleeves and picked up spatulas. Even those who couldn't do anything big were washing something, raking something, plastering, painting, whitewashing.

Principal, Kyiv oblast

Distance learning

Distance learning in schools was introduced across Ukraine at the beginning of the COVID-19 pandemic. This made it possible to continue the educational process during the period when it was impossible to attend school. However, some students, especially those from low-income households or rural areas, did not have access to the necessary gadgets or high-speed internet connections. This could have led to increased educational inequalities and a deterioration in the quality of education²⁹. In addition, the lack of face-to-face communication and the need for

²⁹ Barron Rodriguez M. R., Cobo Romani J. C., Munoz-Najar A., Sanchez C., Inaki A. (2022) Remote Learning During the Global School Lockdown: Multi-Country Lessons (English). Washington, D.C. : World Bank Group. <http://documents.worldbank.org/curated/en/668741627975171644/Remote-Learning-During-the-Global-School-Lockdown-Multi-Country-Lessons>. European Commission, Directorate-General for Education, Youth, Sport and Culture, Koehler C., Psacharopoulos G., Graaf L. (2022) The impact of COVID-19 on the education of disadvantaged children and the socio-economic consequences thereof: executive summary. Publications Office of the European Union. <https://data.europa.eu/doi/10.2766/787550>.

teachers to adapt to a new form of teaching and the wider use of digital technologies may have affected the quality of education. According to the results of the second cycle of the nationwide external monitoring of the quality of primary education, teachers tend to believe that distance learning has had a negative impact on students' educational progress in Ukraine³⁰. This was due to irregular online lessons and attendance, teachers' unsystematic explanation of new material, lack of technical resources or insufficient skills in their use. As a result of the full-scale invasion, a significant number of students were forced to continue their education remotely, which could have exacerbated existing problems and created new challenges.



At the same time, the experience of learning during the pandemic allowed them to adapt more quickly to the challenges of martial law, including the need to study remotely. Both teachers and students had experience with digital devices for distance learning. According to the teachers, this allowed them to adapt to the distance learning mode faster. Some of them mentioned that they did not experience a "shock effect" from the transition to this mode of education.

“

We had a pandemic and coronavirus, so distance learning was not new to us, so the staff of the school easily adjusted to the work [...]. Yes, it's inconvenient, sometimes there are some technical difficulties with electricity, Internet, and mobile communication. But we adjusted the work in such a way that we were comfortable and the educational process did not stop.

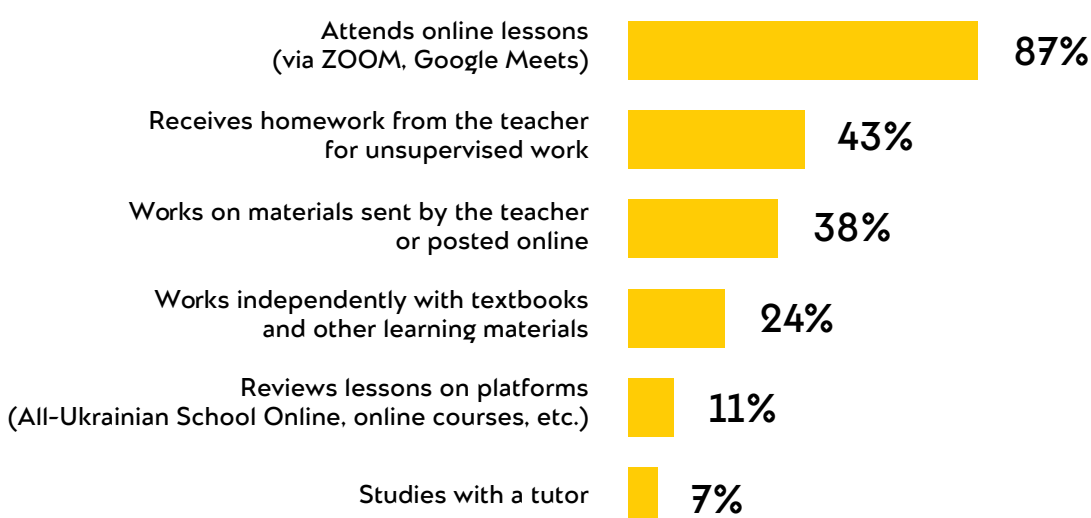
Principal, Kharkiv oblast

³⁰ UCEQA (2021) Report on the results of the second cycle of nationwide external monitoring of the quality of primary education. <https://testportal.gov.ua/wp-content/uploads/2022/08/Velykyj-zvit-CHastyna-I.pdf>.

In the first semester of the 2022/2023 school year, the need to study remotely was affected by the security situation and power outages.

The survey of parents shows that for most children (87%), distance learning involves attending online lessons, for instance, via ZOOM. According to parents, the share of distance learners who access learning resources outside of school is relatively small: 11% of students watch lessons on online platforms, and 7% visit tutors — mostly high school students (49% of students who do distance learning and at the same time study with tutors are in grades 10–11).

Figure 5. “If your child is studying or has studied remotely in most subjects, how is this happening/has happened?”



Note: Respondents could choose up to three answers. Answers with more than 1% of the respondents' answers are shown, the rest of the answers: "Other", "Hard to say". N=2045.

Teachers and parents mentioned in interviews that some parents whose children study in schools in Kyiv and Chernihiv oblasts were afraid to let their children attend classroom lessons in the first semester of the 2022/2023 school year because of possible shelling of educational institutions as places of mass gathering. Therefore, some parents chose for their children to either do distance learning³¹, or home schooling. This threat also influenced the administration's decision to stop individual consultations provided by teachers, which took place in the school premises, even though the distance learning mode was used.

³¹ By parental decision, a child can study remotely, even when the school is open full-time or is in a mixed mode of education. In this case, the child is either transferred to a separate online class or the teachers post teaching materials and assignments for each lesson online and conduct assessments online.

“

When they started launching the damn Shaheds³² from Belarus [...] and there was an air raid alert, and we have no shelter in the school, [the school] decided that they would not risk the lives of children and made everyone turn to distance learning mode.

Parents, Chernihiv oblast

Distance learning lacks face-to-face communication with students to ensure quality learning and assessment. At the same time, for example, some schools in Chernihiv and Kyiv oblasts have set up digital education centres with the help of donors, including savED and Save the Children. Students have the opportunity to attend them even though the institution is closed due to damage or repairs. Teachers noted that children come to them several times a week, in particular, they gather for additional classes that take place at the initiative of teachers, clubs, and educational hours. In one of the educational institutions in Chernihiv oblast, the centre has heaters to create comfortable conditions even though there is no heating in the institution.



“

School not only provides knowledge, but school is also a sort of centre of support. Because after all, [children's] lives go on, and it is necessary that children [start] to communicate with each other as soon as possible and move on to normal life.

Principal, Chernihiv oblast

³² Iranian-made kamikaze drones (loitering munitions) used by Russian troops to attack Ukraine.

In one hromada in Kyiv oblast, such a centre was created for a school that was completely destroyed. It is located in the premises of another hromada-owned institution, which was the only one that was not damaged in the locality. It would later also allow primary school students to start studying full-time in their locality, as they had to travel to another settlement for the first semester. In addition, this will allow grades 5-9 to switch from distance learning to mixed mode of learning, as they will be able to travel to another location instead of primary school.

2.2 Challenges for the organisation of the educational process

In the first semester of the 2022/2023 school year, teachers tried to keep up with their work plans and follow the curriculum. At the same time, in interviews, some of them mentioned that at the end of the 2021/2022 school year, they had to adjust the calendar and thematic planning due to the need to combine several topics. They also mentioned that in the context of distance learning, the number of assignments for students is sometimes reduced. In addition, due to the need to suspend the educational process during air raid alerts, teachers covered less material than planned. This caused a lag in calendar and thematic planning.

According to teachers, in some schools with distance learning, the class schedule in the first semester of the 2022/2023 school year has not changed significantly compared to the pre-war period. At the same time, schools with a mixed mode of education had to adjust their timetables to this mode of learning. For example, in one school in Chernihiv oblast, students spend the first half of the day studying at school, and the second half of the day studying at home, and vice versa. Therefore, an hour-long break is required in the middle of the day so that children can get home.

Security challenges

From February 24, 2022, to the time of writing this report, air-raid alerts were announced 15 thousand times in Ukraine, with an average duration of about 1 hour³³. In interviews, informants noted that, in accordance with the law, classes are not held during air raid alerts. Under conditions of classroom or mixed mode of learning, if the air raid alert is announced during classes, students go down to the shelter. If the air raid alert is

³³ Air-raid alerts statistics. <https://air-alarms.in.ua/#statistic>.

announced while students are still at home, they are asked to stay in a safe place or in a shelter and wait for the all-clear. At the same time, in the context of distance learning, teachers stop classes during an air raid alert and ask children to go to a shelter or safe place.

After the all-clear, classes resume according to the schedule. The study participants we interviewed mentioned that some teachers sometimes hold extra classes to catch up on material that they did not have time to cover due to air raid alerts.

According to teachers and parents from hromadas in all study areas, sometimes teachers do not stop an online lesson during an air-raid alert. Some teachers stop teaching the material, but the students remain in the online lesson and informally communicate with each other or go about their business. Some teachers who have laptops are able to work in shelters, including preparing teaching materials.



If I respond to each air alert all the time, I understand that I won't have time to teach my children anything. No lesson today, no electricity tomorrow... I realise with responsibility that I have nowhere to run.

Teacher, Kharkiv oblast

Due to security concerns, physical education classes are not being held in one of the schools in Chernihiv oblast, where students are studying in a mixed mode. According to the principal of this school, if an air raid alert is announced, it will take more time to go to the shelter because of the need to change clothes.

According to teachers, it is mostly not possible to continue the educational process in the shelters of schools. This is due to a lack of space, furniture and material and technical support, as well as a large number of children staying in the space at the same time. With limited opportunities to continue lessons, especially in primary school, teachers try to switch children's attention to other activities whenever possible: various games, watching videos, quests, drawing or singing. However, according to the study participants, a significant number of children use cell phones for games and other activities while in the shelter. Some parents take their children home during air raid alerts.

Teachers from several schools in Kyiv and Chernihiv oblasts mentioned that the shelters in their institutions are equipped with autonomous lighting. In addition, in one school in Chernihiv oblast, the shelter is connected to a generator as a source of autonomous power supply, which,

in addition to light, can provide heating in the building. This improves the conditions in these shelters during air alerts.

Power outages

In the first semester of the 2022/2023 school year, teachers were forced to adjust the educational process to planned and emergency power outages due to massive shelling of Ukraine's energy infrastructure by the Russian army.

In interviews, teachers stated that it is more difficult to conduct lessons remotely than in person during power outages. Classroom lessons can still be held during blackouts. Some schools with full-time or mixed mode of learning have received generators at the expense of budgetary or donor funds. This made it possible to hold classes in full even despite power outages.

“ It is much more convenient when children are at school. Even when there is no electricity, we still conduct lessons. We can hold classroom lessons even without electricity, with chalk and a blackboard. It is very difficult to conduct online lessons without electricity, but teachers still conduct them via the mobile Internet, on a generator. That is, we adapt to any situation.

Teacher, Chernihiv oblast

Teachers tried to adjust the schedule to the power outage schedules, for example, by moving some lessons to times when there is power. For example, in one of the schools in Kyiv oblast, classes resume 20 minutes after the all-clear signal or the power comes back on. In another school in



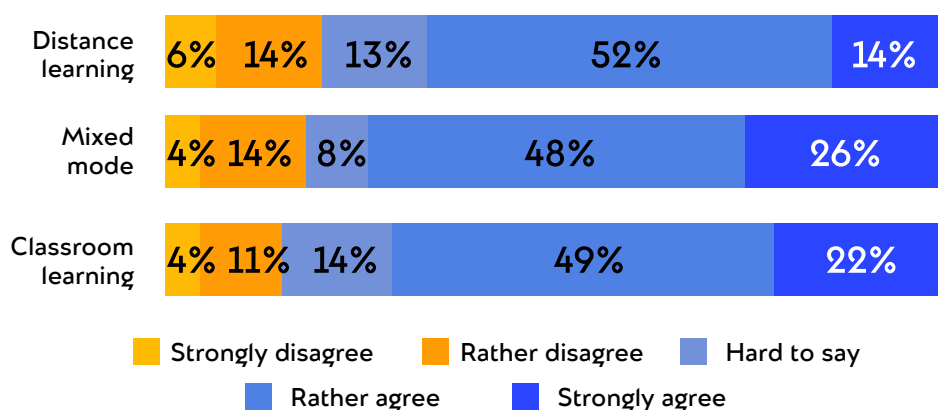
Kyiv oblast, which is working remotely, the administration allowed partial flexibility in the schedule, so if, for example, the power was cut off from 8 to 12 am, they could start classes at 12 when the electricity came back on. Some schools have also reduced the time of breaks so that children can return home while it is still light outside, as street lighting may not work because of power outages.

At the same time, the time of lessons was shortened due to the power outage. According to parents, teachers are sympathetic to the problems with light and communication, and allow them to hand in assigned work later.

Some parents used autonomous sources of electricity, such as generators, batteries, or charging stations, to organise home schooling. However, such opportunities are not always available to children from low-income households due to the high cost of such equipment and its maintenance.

Despite all the challenges described above, the majority of parents surveyed strongly or somewhat agree that they and their children have managed to adapt to the new challenges in learning related to the war (Table 27). 43% strongly or somewhat agree that their children are able to successfully acquire new knowledge in the current learning mode (Table 28).

Figure 6. "My child and I have managed to adapt to new challenges in learning related to the war", by mode of education



Note: Questions "Please read the following statements and indicate how much you agree with them: "My child and I have managed to adapt to the new challenges in education related to the war" and "What mode of education did your child use in this school year, i.e. since September 1, 2022?" Answer options with more than 1% of respondents' answers are shown, the rest of the answers are given: "Home schooling", "Hard to say". N=2045.

2.3 Access to lessons and materials

Teachers have a wide range of tools to organise the educational process, in particular, for conducting lessons and communicating with students and parents: Human, ZOOM, Google Meet, and Google Classroom, email, social media (Facebook, Viber, Telegram, Messenger), and mobile communication. However, the experience of using different options and finding the best one was rather due to negative reasons in turbulent conditions: from the first days of the full-scale invasion, teachers had to change platforms, trying to find the one where the connection was least interrupted while only mobile internet is available during blackouts, and where it is easiest to upload a lesson video or assignments, if the lesson itself had to be cancelled due to shelling or air raid alert during the threat of shelling; and also to use a set of messengers to keep in touch with students, their parents, and other teachers to quickly share information.



According to the teachers who work remotely, they have begun to conduct more lessons asynchronously to ensure that students have access to education. Teachers record part of the lessons on video and upload them to electronic platforms such as Google Classroom or Human. This gives students the opportunity to watch the video at their convenience and adjust their learning process to power outage schedules. In addition, sometimes, when children miss online lessons, teachers can provide individualised advice on the material.

According to teachers and parents, in order to ensure that their children have access to education, some parents take their children to relatives who have access to the Internet. A participant in one of the interviews cited an example of a parent who took her child several times to a gas station with electricity and Internet so that the child could connect to the lesson and do their homework. In another example, neighbours share a Wi-Fi password that works during power outages. In addition, parents buy charging stations or batteries and connect routers or gadgets to them so that their children can connect to online lessons.

Some of the students came to their own schools to connect to distance learning. In addition, students in a rural hromada in Chernihiv oblast came to cultural institutions, such as village clubs or hromada centres that had electricity and means of communication to connect to online lessons. Some directors or employees of these institutions specifically opened the buildings so that children could attend online lessons. According to the principal of a school in Kyiv oblast, they managed to arrange for their institution to be switched to a power line that is excluded from power outages.

Teachers and parents mentioned the lack of printed copies of the NUS textbooks for grades 5: due to a lack of funds, students in grades 5 received only electronic copies in the first semester of the 2022/2023 school year. This makes it difficult for students to access educational materials during power outages and when they are working using their phones.

Conclusions

- During the year 2022, the educational process in all Ukrainian schools was suspended for at least two weeks due to the full-scale invasion of RF, but in some schools this period was longer, and in some – until the end of the 2021/2022 school year.
- Most schools in Ukraine cannot teach children in the usual way, in classrooms, because of the war. As of December 2022, 36% of schools alternated between distance and classroom learning, and another 36% provided distance learning only. Most of these schools are located in the eastern and southern regions of the country.
- The experience of distance learning during the pandemic helped teachers and students adapt to the challenges of martial law and

quickly resume the educational process in a remote or mixed mode. At the same time, even before the full-scale invasion, some students from vulnerable groups, especially those from low-income households and rural areas, had limited access to gadgets and high-speed internet. The war may have exacerbated existing educational inequalities, and the security and other challenges it caused may have created new challenges to access to quality education.

- Schools have tried to provide full-time (classroom) education at least for primary school students. In some cases, children were forced to attend another school or even travel to another locality to do so.
- Digital educational centres created in some schools gave students the opportunity to periodically visit the institution for individual consultations and communication with each other and with teachers, even if it was closed due to damage or repair work. These centres became centres of support for children.
- Regardless of the mode of education, lessons were regularly interrupted and rescheduled due to air raids alerts, when teachers and children had to move to shelters or stay at home, and due to power outages. This means a loss of learning time and a deterioration in the quality of education, in particular, because teachers often could not continue the educational process in school shelters.
- Teachers tried to keep up with their plans and curricula, in particular, in the context of distance learning, partially preferring asynchronous learning and uploading video recordings of lessons and teaching materials to electronic platforms. This gave students the opportunity to study at their own convenience and potentially reduced the impact of security challenges and power outages on the educational process.
- Due to power outages in some schools, administrators and teachers adapted the schedule to the power outage schedules. This made it possible to cover the planned material on time. At the same time, this could impair the quality of the educational process and the ability of students to absorb new information, in particular, because of reduced break times due to the short daylight hours and the need to complete lessons during daylight hours.

Part 3. The impact of war on the participants of the educational process

3.1 The impact of war on students

Children and parents were forced to adapt to new challenges. In the context of a prolonged full-scale war, the educational process takes place in a hybrid mode: in some hromadas, it is conducted in a distance format, in others, it is mixed; if lessons are conducted in a classroom, they are often interrupted by air raids and the need to go to a shelter, and there are periodic power outages. These and other factors can affect the emotional state of students and their ability to learn. In this part, based on data from the survey of parents and in-depth interviews with teachers, we will look at several aspects of the impact of the war on students. In particular, the text will discuss the increased importance of resources for learning at home and parental involvement in distance learning; the increased time students spend studying at home, out of school, and in distance learning; the deterioration of academic performance and the loss of days of school; and the deterioration of children's psycho-emotional state, including high levels of anxiety and lack of live communication.

Gadgets

In the context of forced interruptions in studies and the need to study remotely or in a mixed mode as a result of a full-scale war, resources for



learning at home are especially important. Having a gadget is a prerequisite for participating in distance learning, but not all families can afford to buy a separate gadget for their children.

A significant number of parents had to leave the place where they had been living until February 24, 2022, but not all of them managed to take their gadgets with them. Some equipment was lost, in particular, due to active hostilities and during the occupation. There are numerous reports from journalists and eyewitnesses of the theft of civilian property, including mobile phones and laptops, by the Russian military³⁴. In addition, many households are unable to return home and therefore have no way to use the gadgets they left behind.

The majority of the respondents (90%) indicated that their child has at least one gadget of their own that they use for learning. Another 9% of the respondents said that their child shares a gadget with other family members (Table 12). Children who share a gadget with other family members are mostly students in grades 1–4 (16%). Comparatively, 7% of students in grades 5–9 share a gadget, and 3% in grades 10–11 (Table 13).

Among families that consider themselves internally displaced (hereinafter referred to as IDPs), 83% of children have their own gadgets for learning.

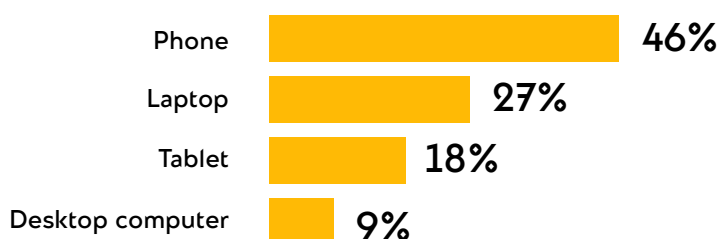


³⁴ Slidstvo Info. "Slidstvo Info" found a Russian soldier who stole a phone from a 10-year-old girl. <https://www.slidstvo.info/news/slidstvo-info-znajshlo-rosijskogo-soldata-yakyj-vkrav-telefon-u-10-rich-noyi-ukrayinky/>; Ukrayinska Pravda. A set of pots and spinning rods: investigators found out what Russians stole in Bucha. <https://www.pravda.com.ua/news/2022/11/9/7375647/>.

The lowest share of ownership of a gadget — about 74% — is among children from families with the lowest subjective assessment of their well-being³⁵ (Table 14).

Most often (for 46% of the respondents), the main gadget for studying is a mobile phone. The phone is the most common learning tool for all forms of education and classes.

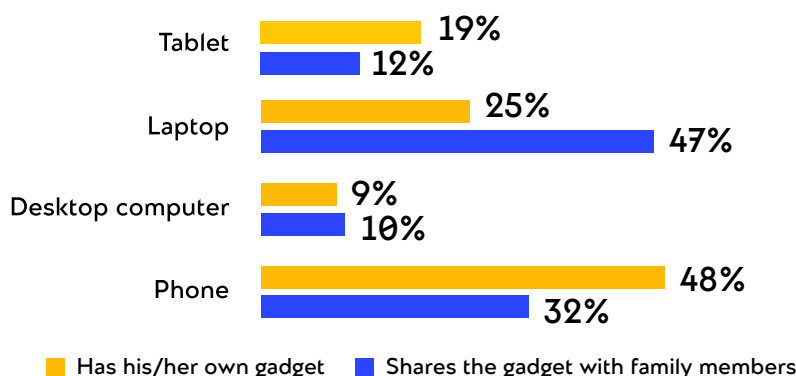
Figure 7. “What gadget does a child use most often for learning?”



Note: Answer options with more than 1% of respondents’ answers are given, the rest of the answers are given: “Hard to say”. N=2022.

The survey shows that most often, a phone is an individual study tool. At the same time, if the main gadget for studying is a laptop, students usually have to share it with other family members.

Figure 8. “What gadget does a child use for studying most often?”, based on the availability of their own gadget for studying



Note: Questions “Does your household have any gadgets (e.g., phone, tablet, computer) that your child can use for learning?” and “What gadget does your child use for learning most often?” Answer options with more than 1% of respondents’ answers are shown, the rest of the answers are: “Hard to say”. N=2021.

³⁵ To the question “Which of the following statements most accurately describes the financial situation of your household at the moment?” the option “Not enough money for food” was chosen (all answers: “Not enough money for food”; “Enough money for food, but not always able to buy clothes”; “Enough money for food and clothes, but not always able to buy household appliances”; “Enough money for household appliances, but not able to buy a car or apartment”; “We can buy a car and other things of similar value”).

There are differences in gadget use between children from rural and urban areas, and according to the level of household well-being. Among children from urban areas, 42% of children use a phone as their main gadget for learning, while among children from rural areas this figure is 51%. In addition, the phone is more likely to be the main tool for learning in families with lower levels of well-being — about 72% of children from households that reported not having enough money for food³⁶ study using a phone (Table 16).

In the in-depth interviews, teachers noted that many children in distance learning use their phones to connect. At the same time, some students who use their parents' phones are unable to join classes if they go to work and take their gadgets with them. Teachers reported cases where some children did not connect to classes for a long time because the family did not have a phone at all, even for adults, or in a large family, only older siblings had phones/tablets/computers.



Most of the time, students connect to the lessons from their phones anyway. Because, as you say, for example, look, [the students respond]: "I'm on my phone, I can't see it as clearly as I can from this side, it's too small for me". Perhaps this has some effect on the poorer performance of the students. If there was enough stuff so that [students could access the lessons from convenient gadgets], maybe something would be better.

Teacher, Kyiv oblast

Some schools, particularly in Kyiv oblast, collected data on students' gadgets used for distance learning. In addition, school staff donated gadgets to low-income families and children from vulnerable groups (orphans). Contacts of volunteer or charitable organisations that helped households purchase gadgets, such as laptops or tablets, were also provided.

Another problem with the learning environment was also mentioned in the interviews: the lack or inconvenience of their own workplace. For example, not everyone has a separate room, so they have to share it with other family members, siblings, or friends. Also, those families who were forced to migrate within the country may have been resettled and lived in uncomfortable living conditions, such as in converted educational

³⁶ To the question "Which of the following statements most accurately describes the financial situation of your household at the moment?" the option "Not enough money for food" was chosen (all answers: "Not enough money for food"; "Enough money for food, but not always able to buy clothes"; "Enough money for food and clothes, but not always able to buy household appliances"; "Enough money for household appliances, but not able to buy a car or apartment"; "We can buy a car and other things of similar value").

institutions or dormitories (“collective centres”), where it is difficult or impossible to study due to close proximity to others.



The child went to the park for the first week. It had already started to get cold, and he would go to the park and sit down under a tree. I told him: don't write, just listen. At that time, there were a lot of air raids in Poltava.

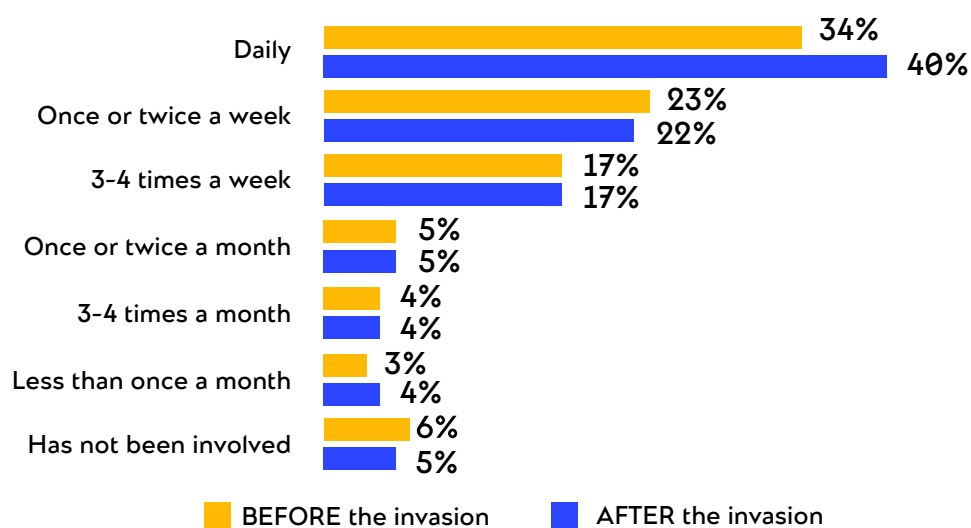
Teacher, Kharkiv oblast

Parents' involvement

During a full-scale invasion, parents have to spend more time and effort supporting their children. This is due to interruptions in education, the transition to distance or mixed mode of learning, and daily challenges such as air raids and power outages.

Our survey asked parents to assess how often they were involved in their children's education **before** and **after** the full-scale invasion. As a result, the share of respondents who are involved in their child's education in some form on a daily basis has increased by 6% (from 34% to 40%). At the same time, the involvement of parents who said they were not involved in their child's education every day before the full-scale invasion has hardly changed.

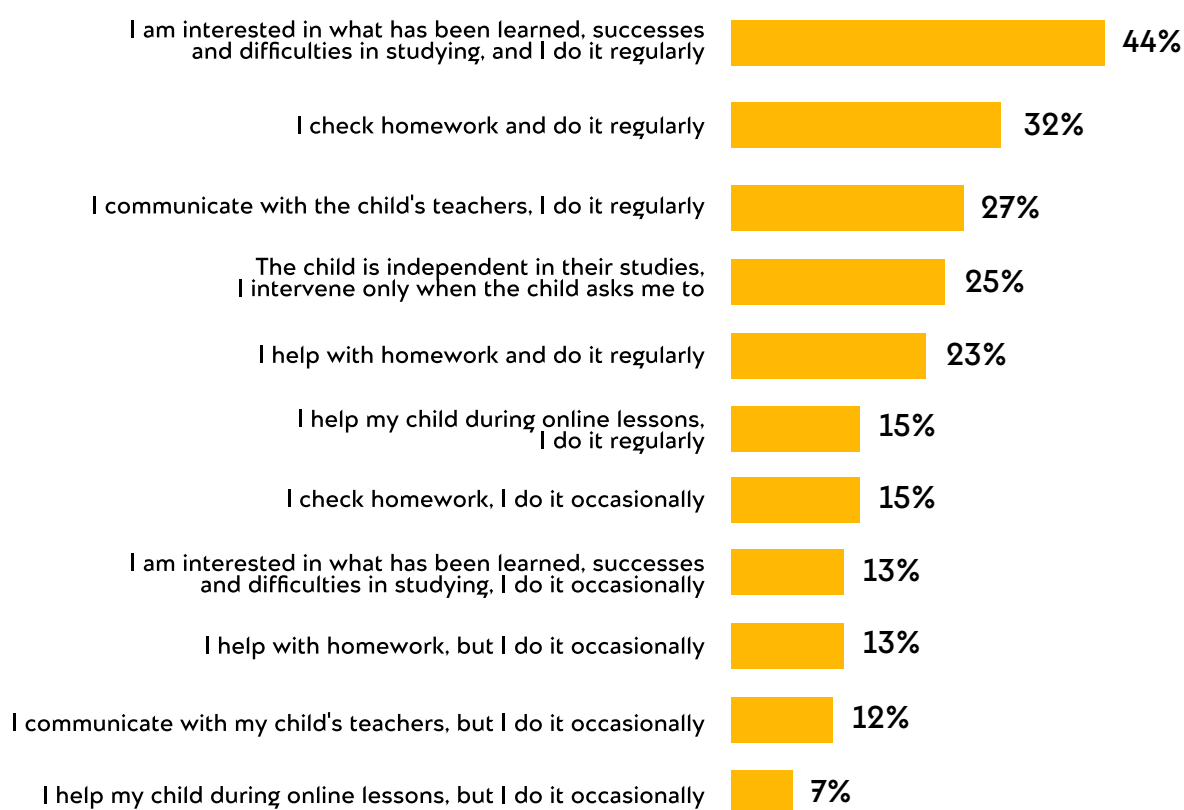
Figure 9. Parents' self-assessment of their involvement in their child's education, before and after the invasion



Note: Questions “How often were you involved in your child's education BEFORE the full-scale invasion began?” and “How often were you involved in your child's education AFTER the full-scale invasion began?” Other answers: “My child went to school during the full-scale invasion” — 6%, “Hard to say” — 3%. N=2045.

25% of the respondents said that their child is independent in their studies and requires no assistance (mostly parents of high school students). At the same time, most parents constantly support their children in their studies. For example, 44% are regularly interested in what they have learned, as well as in their child’s successes and difficulties in learning, 27% communicate regularly with their child’s teachers, and 33% constantly help and check homework.

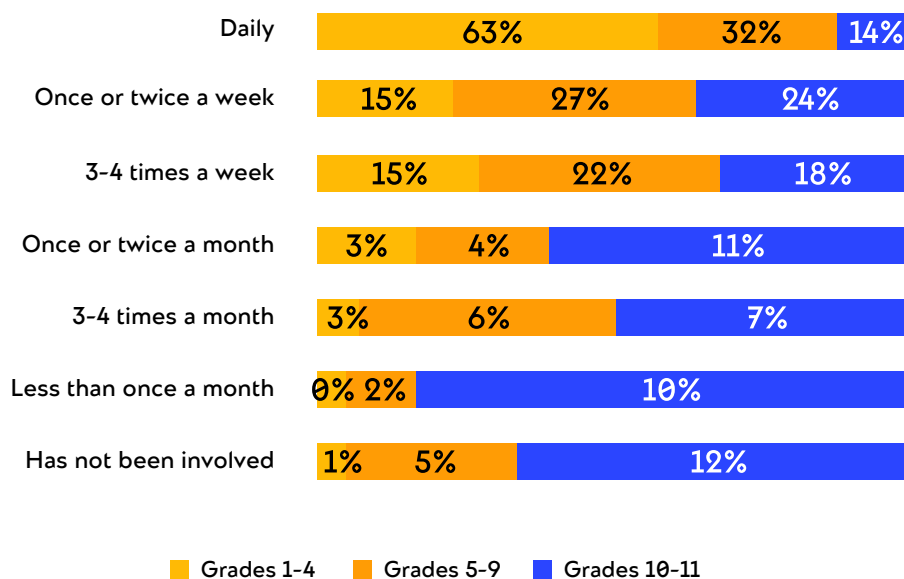
Figure 10. “How involved are you in your child’s education?”



Note: Respondents could choose up to three answers. N=2045.

As expected, parents of primary and basic school children are most often involved in education, and parents of high school students are least involved. Thus, among parents of students in grades 1–4, 63% are involved in their child’s education on a daily basis, while for parents of secondary school students this figure is 32%, and for high school students — 14%.

Figure 11. Parents' involvement in education, by grade



Note: The questions "How often have you been involved in your child's education since the start of the full-scale invasion?" and "What grade is your child in?". Answers that gained more than 3% of the respondents' answers are given, the rest of the answers are: "Hard to say". N=2045.

During the in-depth interviews, the teachers spoke mostly positively about parents' involvement in the educational process: they tried to arrange workplaces for their children and provide their children with gadgets for learning, even despite financial difficulties, for example, by purchasing laptops with loans. In addition, some parents mentioned that they helped restore their school, both financially and physically, together with teachers and school administrators. For example, they raised funds, carried out some of the repair work, cleaned the building or arranged shelters, including constructing furniture.

Parents said they tried to support their children in their studies whenever possible. For example, during power outages and lack of communication, they help with assignments in subjects where part of the task can be done manually and without light. These are, in particular, "Technology", "Art", or "Design". Parents who work from home can have more control over their children. At the same time, they mentioned an increased burden on parents, especially during distance learning in the face of blackouts and air raids, and said they were tired. In addition, they mentioned that due to air raids, teachers might give some of the material to students to work on independently. However, parents might not have the time to explain the material to their children, especially if there are several children in the household, or they might lack pedagogical skills to do so.

According to some teachers, it is difficult for them to interact with some parents in the context of distance and home-based learning. According to the teachers, a small proportion of such parents pay little attention to their children's education, do not always cooperate and are less involved in the educational process in general. Communication with these parents can increase the workload of teachers and worsen their psycho-emotional state.



Most of the problems are with those who are on the home-based form of education. [...] There are parents who ignore them, for example. Teachers write to them, they write to the child, they write to the parents, but they ignore it. Then, after you've worn out all your nerves, after you've called and written to them for about the tenth time, they can't answer the phone. I mean, well, there are few of them, but they exist.

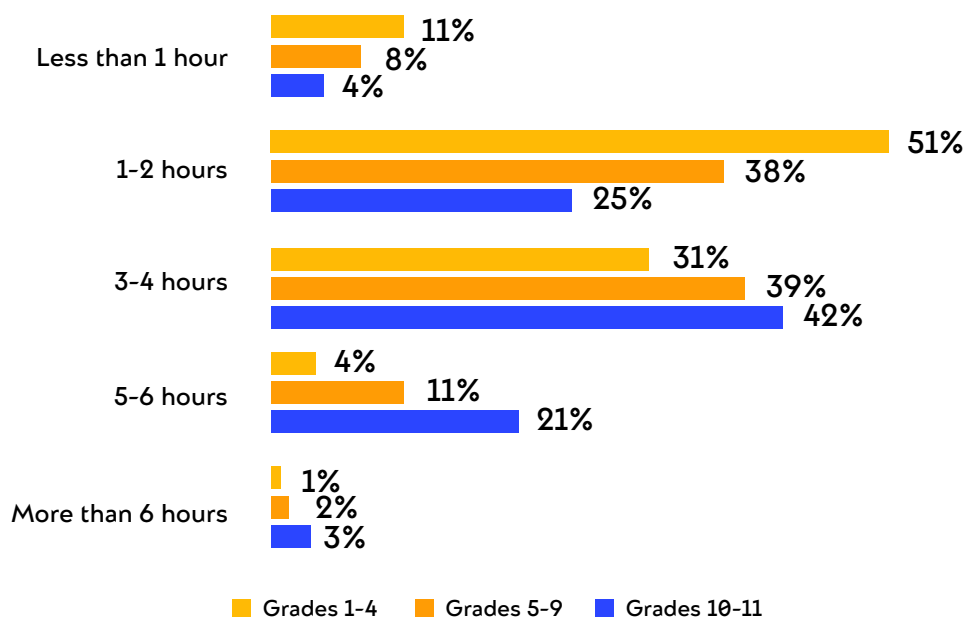
Teacher, Kyiv oblast

Learning load

The results of the survey show that children studying online spend more time learning at home every day, in addition to attending classes, compared to children studying at school in classrooms or in a mixed mode. 58% of parents of children studying distantly said that their children spend more than 3 hours learning at home every day. Of these, 17% study for more than 5 hours. For comparison, among children studying in a mixed mode, the share of those who study at home for more than 3 hours daily was 49%. Among children studying at school in classrooms, this figure was 35% (Table 20).

Students in grades 10-11 spend the most time learning at home, in addition to attending classes. 66% of high school students study at home for more than 3 hours a day. Among them, 24% study for more than 5 hours. At the same time, primary and secondary school students spend less time studying at home. More than half of students in grades 1-4 study at home for 1-2 hours a day. Among students in grades 5-9, 38% study for 1-2 hours a day and another 39% study for 3-4 hours a day.

Figure 12. "How much time does your child spend studying, in addition to attending school, at home every day?", by school grade



Note: Questions: "How much time does your child spend studying every day in total, apart from attending school/ attending online lessons?" and "What grade is your child in?" Answer options with more than 3% of respondents' answers are shown, the rest are the remaining answers: "Hard to say" — 3%. N=2045.

Loss of learning time

At the beginning of the full-scale invasion, forced vacations were introduced. In addition, students lost the opportunity to study during the occupation or in the process of forced displacement. School students are also often deprived of the opportunity to study due to air raids and threats of artillery shelling, power outages, problems with mobile communications and the Internet, etc.

Although our study could not fully cover families in the temporarily occupied territories (TOT), it is worth noting that children from TOT are mostly deprived of the opportunity to study in Ukrainian schools, even in a distance mode. Families who are under occupation and want to continue their children's education in Ukrainian schools distantly face threats and harassment from the occupiers³⁷.

The survey asked parents to estimate the number of school days when their child has not attended school at all since the start of the full-scale invasion. Most of the parents were quite optimistic in their estimates. Thus,

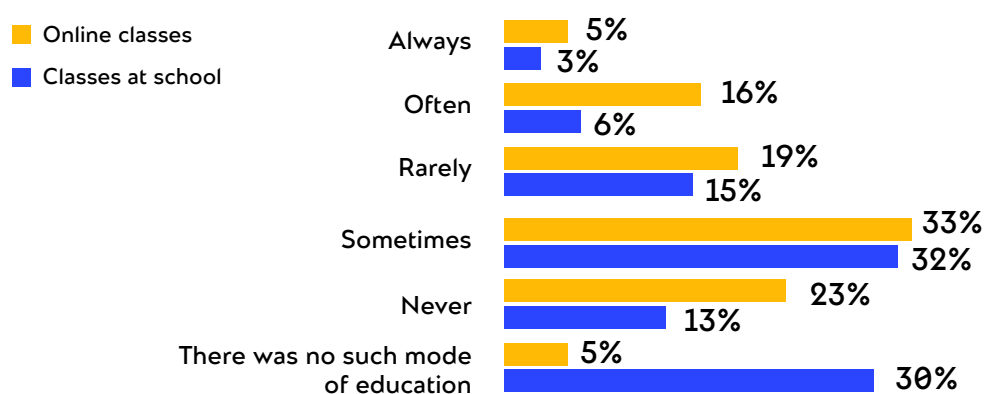
³⁷ Radio Svoboda. "We were warned not to speak Ukrainian". Education in the south under pressure from the occupiers. <https://www.radiosvoboda.org/a/novyny-pryzovyya-1-veresnya-okupatsiya-kherson-osvita/32005468.html>.

8% of the respondents said that their child has been studying constantly since the beginning of the full-scale invasion, although it is likely that their children also missed up to two weeks of school during the forced vacations at the beginning of the invasion. 40% of the respondents reported that their child had missed up to 14 days of school since the start of the full-scale invasion, 29% estimated the period to be up to 30 days, and another 13% said that their child had missed more than 30 days (Table 21).

Estimates of the number of missed days of school differ for respondents from different regions. Among respondents from Northern and Eastern Ukraine³⁸, the share of those who estimated the number of missed school days at more than 30 was three times higher than among respondents from Western and Central Ukraine — 23% and 8%, respectively. For example, 66% of the parents surveyed in Chernihiv oblast said that their child had missed more than 30 school days since the beginning of the invasion. In addition, the respondents from the southern, northern and eastern oblasts were more likely to be unable to answer this question. In the southern oblasts, 28% of respondents chose the option “Hard to say”, in the eastern oblasts—16%. This may indicate frequent and long breaks in education among children from these oblasts (Table 22).

Parents of children studying distantly were more likely to say that their children had often or always missed classes compared to parents of children studying at school—21% and 9% respectively.

Figure 13. “How often has your child missed classes since the beginning of the full-scale invasion? (due to air raids, power outages)”, by mode of education



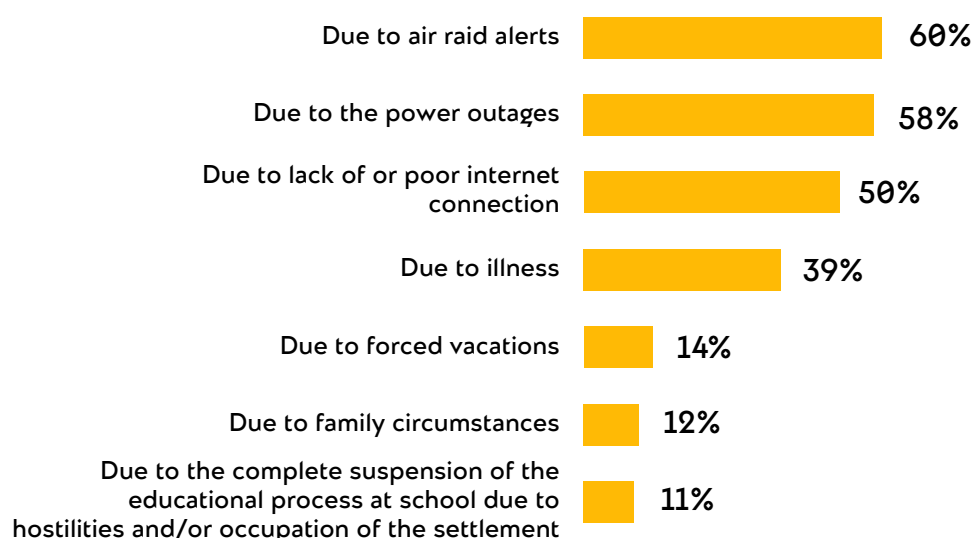
Note: The questions “Since the beginning of the full-scale invasion, how often has your child missed classes? Online classes”, and “How often since the beginning of the full-scale invasion has your child missed classes? Classes at school”. Answer options with more than 1% of respondents’ answers are given, the rest of the answers are: “Hard to say”. N=2045.

³⁸ Macro-regions: West — Volyn oblast, Zakarpattia oblast, Rivne oblast, Ivano-Frankivsk oblast, Lviv oblast, Ternopil oblast, Khmelnytskyi oblast, Chernivtsi oblast; Centre — Vinnytsia oblast, Kirovohrad oblast, Poltava oblast, Cherkasy oblast; North — Zhytomyr oblast, Sumy oblast, Chernihiv oblast; East — Dnipropetrovsk oblast, Donetsk oblast, Kharkiv oblast, Luhansk oblast, Zaporizhzhia oblast; South — Mykolaiv oblast, Odesa oblast, Kherson oblast; Kyiv and oblast.

Parents' estimates of the number of missed school days are likely to be underestimated. First, some parents may not have considered days when there were no classes or other interaction with teachers to be missed school days, but their child still completed certain tasks or worked on the material independently. Secondly, the question of the number of missed days of school proved to be quite difficult for parents. At the time of the survey, 10 months had passed since the start of the full-scale war, and therefore parents might not remember all the missed days of school since the beginning of the invasion. This is confirmed by the fact that 11% of respondents did not answer the question (refused to answer or chose the option "Hard to say"). In view of this, the issue of assessing the number of missed days of school requires deeper research.

Parents mentioned air raid alerts, power, internet and mobile phone outages due to shelling as the main reasons for missing classes. Despite the fact that most female students are studying in distance or mixed modes of education and are not affected by the lack of shelter in schools, they still have problems with access to education. In particular, it is the lack of gadgets for learning and a proper workplace at home. 11% of the respondents indicated that their children do not have their own gadgets for studying or a suitable workplace at home.

Figure 14. "What have been the most frequent reasons for your child to miss school since the beginning of the full-scale invasion?"



Note: Respondents could choose up to five answers. Answers selected by more than 10% of respondents are shown, the rest are other answers: "Due to lack of equipment and workplace for studying at home" —1%, "Due to lack of motivation of the child to study" —3%, "The school did not provide distance learning" —2%, "Hard to say" - 2%, "Did not miss" —1%, "Other" —1%.

Academic performance and learning losses

Learning losses or learning gaps are gaps, specific or general losses in knowledge and skills that students experience as a result of interruptions and inconsistencies in learning, compared to educational standards and expected learning outcomes³⁹. Although our study did not include a measure of learning losses, the survey and in-depth interviews provide insights into parents' and teachers' perceptions of academic performance, existing knowledge and skills gaps, and possible ways to compensate for them.



In response to the question about the impact of the full-scale war on students' academic performance during the in-depth interviews, both teachers and parents reported different experiences, sometimes even no problems with academic performance. For example, at the individual level, according to the teachers, such consequences did not arise for students who had previously studied well, were well-disciplined and active (participated in competitions, olympiads, etc.), and whose parents were actively involved in their education: they took their children to extracurricular activities, tutoring, and clubs.

In situations where teachers and parents in the in-depth interviews reported noticing learning difficulties among students, they mentioned the following manifestations: less interest and activity in class, lower average

³⁹ The MoES uses the term "learning gaps". Ukrinform. The Ministry of Education and Science plans to conduct a study of learning gaps in schoolchildren's learning outcomes. <https://www.ukrinform.ua/rubric-society/3673619-minosviti-planue-provesti-vimiruvanna-osvitnih-rozriviv-navcalnih-rezultativ-skolariv.html?fbclid=IwAR2IFYhSMYMi70TXQtFSf4wIJbL1uW6oacLifDq3JYkLa6O6mrCP-g5CO4>.

marks in class, difficulties with learning, or a lack of confidence in their own ability to learn.

“ One of them told me that you wouldn't do anything to me, because I can't learn geometry, and that's it. That's okay, you don't have to tell me anything. I said, why are you so categorical? Well, why don't you listen, but what if you learn this topic today and like it? He says no, I don't know it. I mean, you know, I don't know where children get such categorical attitudes from.

Teacher, Kyiv oblast

Teachers also said that in the context of distance education, they themselves are unable to pay as much attention to each student as they would in a classroom setting. For example, this makes it difficult for them to detect in time that a child has not understood a topic and to work on it further.

Some teachers try to measure the learning losses among students caused by the war on their own — for example, through game forms, diagnostic tests that are not graded, etc.

“ Of course, I do [measurements of learning gaps] for myself. For example, I said that I conduct such small things for myself, for example, for children, I give them information, parents give them. I give them in a playful way. Nowadays, kids in the 7th and 8th grades have different games and quests. You see, they go there... And then you realise. Then you realise that those kids have passed, and these kids are still struggling and thinking about these issues.

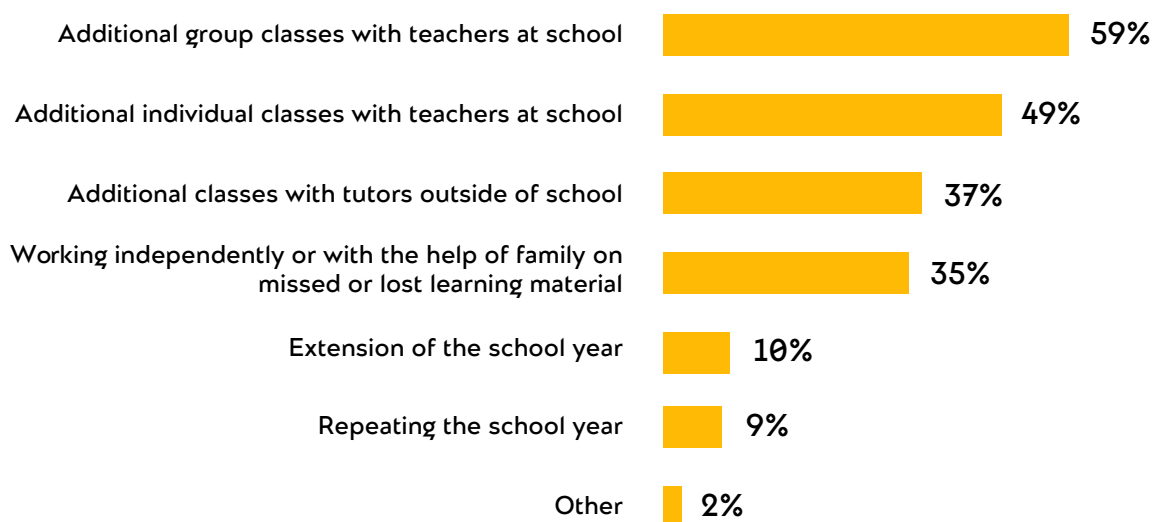
Teacher, Kyiv oblast

At the same time, some teachers in hromadas where the educational process takes place in a mixed or classroom format believe that they have managed to catch up on topics they had previously missed, in particular by allocating time to repeat or review topics from the previous school year, and organising additional classes outside of class.

According to the survey, 85% of parents strongly agree or somewhat agree that the gaps in knowledge and skills that children have as a result of the pandemic and full-scale invasion will have an impact on their education and future (Table 24). 72% of the parents believe that additional measures are needed to compensate for the gaps in their children's knowledge and skills caused by the pandemic and war (Table 25). The majority of the respondents mentioned additional measures as possible: group lessons

with teachers at school (59% of the respondents chose this option), individual classes with teachers at school (49%) or with tutors (37%), and independent or family-based study at home (35%)⁴⁰. At the same time, up to 10% of parents chose such measures as extending and repeating the school year.

Figure 15. "What additional educational [gap-compensating] measures do you see a need for?"



Note: The respondents could choose several answers. N=1470.

The interviewees mostly disapproved of the idea of an additional "rehabilitation school year". Some schools extended the school year until the end of June, studying on Saturdays or during vacations to catch up on the material they had not had time to cover. According to some teachers, the additional school year may result in a decrease or loss of interest in learning among students. Such measures were described as a "step backwards" or a "waste of time". Some teachers expressed concerns that the unfolding of events during the full-scale war is unpredictable, and if the learning environment does not improve, this rehabilitation year will not be a solution, as it will have to be repeated over and over again, and therefore, in their opinion, a "rehabilitation year" is inappropriate.

At the same time, those who studied in a distance mode noted that an additional year of classroom study could improve the educational outcomes of students. In addition, the respondents indicated that a rehabilitation year may be acceptable not at the systemic level, but as an individual measure based on the parents' decision in individual cases.

⁴⁰ The respondents could choose several answers.

Some teachers and parents expressed the opinion that a whole year would be “too much” and that a few additional months would be enough.



I don't want them to waste time, I don't want them to not match their age compared to other oblasts.

Parents, Chernihiv oblast

Psycho-emotional state

The full-scale war has had a negative impact on the psycho-emotional state of children in Ukraine. Although children living in occupied settlements and near the contact line are the most vulnerable, children across the country are also experiencing stress due to air raids and rocket attacks, lack of regular education, lack of communication with peers, the need to change their place of residence, remoteness from family and friends, etc. Studies in other countries show that the effects of war on children's psycho-emotional state can be long-lasting and manifest themselves years later⁴¹.

In addition to the mode of education and material provision, students' psychological state also affects their ability to engage in the educational process. This includes stress and anxiety over the events in the country, if someone close to them is at the front, because of the occupation, forced displacement, death of relatives or friends – all of which were discussed in in-depth interviews with the teachers, principals, and parents. For example, constant worries about parents who are serving in the armed forces affect children's concentration in class and their overall mood.



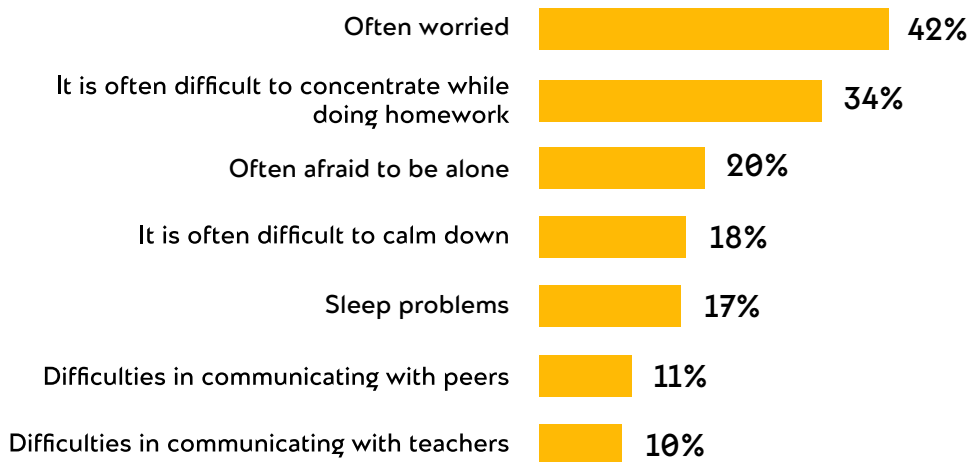
Yeah, why else is it difficult for us? Because our dad is on the first line [...], so the child suffers a lot because of this. Perhaps this is why he has such nervous breakdowns. Because when he realises that his father is fighting, and it is not known how well it will go, he starts to have a hysteria, he does not perceive any learning material at all, he waits for his father to get in touch and write: “Son, I love you”. That's it.

Parents, Kharkiv oblast

The majority of parents (61%) believe that their children have symptoms of stress, such as poor sleep, anxiety, difficulty concentrating, and problems in communicating with peers and teachers.

⁴¹ For instance: 1) Murthy R.S., Lakshminarayana R. (2006) Mental health consequences of war: a brief review of research findings. *World Psychiatry*. 2006 Feb; 5(1):25-30. PMID: 16757987; PMCID: PMC1472271; 2) Save the Children Fund (2007) Stop invisible wounds. The impact of six years of war on the mental health of Syria's children; 3) Edward T.R., Rizz A.T., Simon A., Moro M.R. (2020) Study on parent-to-child transmission related to Sri Lanka's civil war. *Soins. Pédiatrie, Puériculture*. 41(313):29-31. doi: 10.1016/j.spp.2020.02.007.

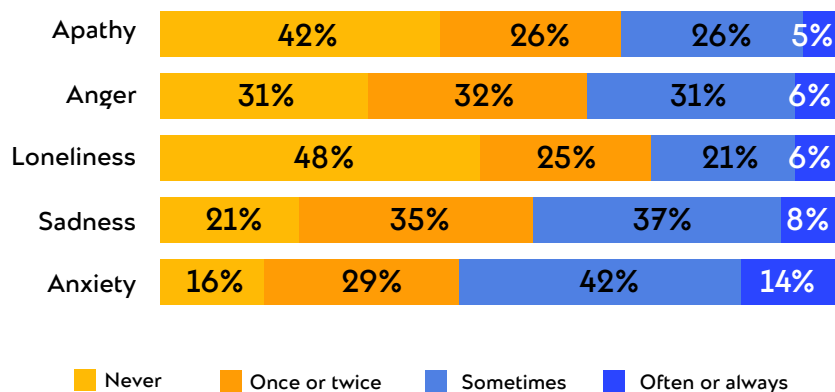
Figure 16. Proportion of parents who rather or completely agreed that their child has the following symptoms



Note: Respondents could choose several answers. N=2045.

This survey also shows that children in full-scale war conditions have a high level of anxiety. Thus, anxiety is the most common symptom among children, mentioned by 42% of parents. 14% of parents said that their child felt anxious all the time or often in the month before the survey. In addition, 8% of parents often or all the time observed their child feeling sad, and 6% each — loneliness and anger.

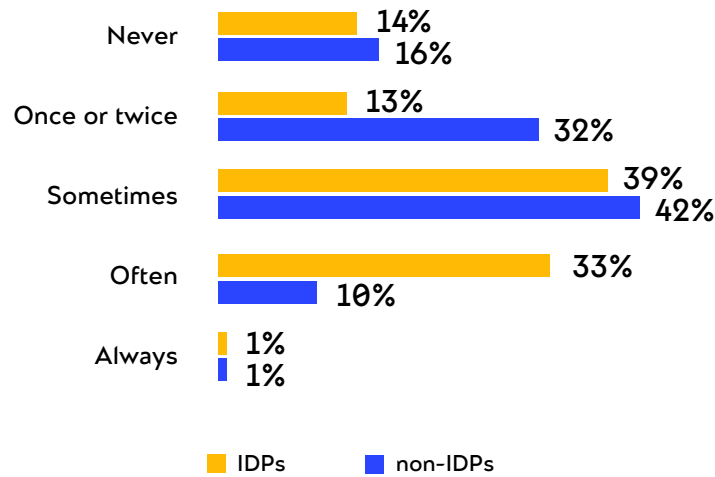
Figure 17. “During the previous month, how often did you observe the following conditions in your child?”



Note: N=2045.

Among IDP children and children living in areas where active hostilities are ongoing, the proportion of those who often feel anxious is three times higher than among other children in the sample. In addition, IDP children have three times the proportion of those who often feel apathy and sadness.

Fig. 18. "During the previous month, how often did you observe your child's anxiety?" - among respondents who consider themselves and do not consider themselves internally displaced persons



Note: Questions "During the previous month, how often did you observe the following conditions in your child: Anxiety" and "Please indicate to which social group from the following list you belong (multiple answers are possible)". N=2045.

During forced vacations and distance learning, children lack communication with their peers and teachers (24% of the parents mentioned lack of communication as one of the main problems for their children). Among the teachers who work remotely, some spoke of their concerns about the poorer (more limited) socialisation of students, as they communicate with other children only online in class for long periods of time, and in rural areas, there are sometimes no other children nearby to spend time with outside of school. According to their observations, this sometimes manifests itself in the fact that students have become more passive, do not turn on the camera, and answer less often in class.



This is perhaps the greatest tragedy. This is the loss of the unity of our entire team. I've already joked that we will probably have to get to know each other all over again, learn all over again.

Teacher, Chernihiv oblast

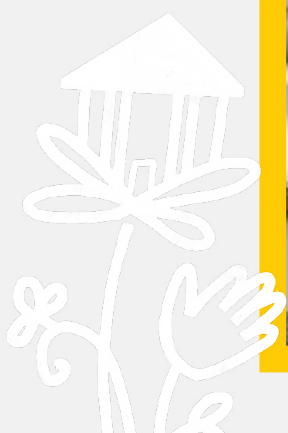
3.2 The impact on teachers' work

The full-scale war also affected teachers and their work. In this section, we will discuss the workload of teachers, the conditions in which they work, and the changes in their psycho-emotional state that occurred during 2022.

According to a GoGlobal Foundation survey conducted among teachers in early 2023, 84% of them estimate that they have a higher workload since February 24, 2022, 54% feel professional burnout, and the same number believe they need psychological help⁴². This part discusses the situation with changes in the workload and psycho-emotional health of the teachers with whom we conducted the in-depth interviews as part of our study.

Workload

Working under martial law requires more of their time, as the usual schedule and approaches to organising work do not always work: there are additional responsibilities and difficulties to overcome. Some teachers have increased their workload, although in the in-depth interviews they initially responded negatively to a direct question about this⁴³.



⁴² GoGlobal. The educational front. The impact of the war on educators. https://globaloffice.org.ua/wp-content/uploads/2023/01/PREZENTATSYA_VPLIV-VIJNI-NA-OSVITYAN.pdf.

⁴³ It can be assumed that they interpreted this question as referring to the number of hours they teach, rather than the time they spend working in general.

Despite the “usual” distance education since the beginning of the COVID-19 pandemic, the full-scale war has added other challenges to this mode of work for teachers. In addition to spending most of their time on a computer/tablet/phone in class, preparing for lessons, and checking work, they also have to cope with regular power outages and air raids, which adds up to a lot of extra work. For example, teachers have to prepare several lesson formats (in-person, synchronous, or asynchronous distance learning) at the same time, as there is a high probability of air raids and power outages every day, which can result in postponing lessons or cancelling them and then having to deliver them in different formats. In case of a power outage, one of the options is to change the schedule and conduct lessons when the Internet is available.

“ Nowadays, when blackouts are so irregular, it is very difficult to plan your day. In fact, you devote all the time when there is electricity and the Internet to your work. Because when there is no power, no internet, you can do some other work that is not related to technology. And here we are using every minute to reply to the children, send a video, or conduct a lesson. For example, today we had a power outage at quarter to 8 in the morning. It switched on at 13:00. We started our lessons at 13:00.

Teacher, Kyiv oblast

Also, instead of lessons that were not held/suspended due to lack of electricity, students can be assigned material for independent study. For teachers, this replacement option means the need to develop appropriate learning materials and tasks to test and consolidate knowledge, post them on the learning platform, and check all children’s assignments, which can take more time, including additional computer time.

“ And everyone sends you homework, tests, assignments. Some of them are sent to Viber, some to Google classrooms. And just imagine, you have to open and review each piece of work. First of all, we all got sore eyes. My eyesight has fallen a bit. You have to open and check every single assignment. Plus, children submit their assignments at different times. They send them in at 7 am, at 12 am, there is no time for them. And we have to check it all somewhere.

Teacher, Kyiv oblast

Because some teachers have left their hromada, the workload of those who remain is increasing: they have to take on some of the responsibilities of their colleagues who have left. The interviews also mentioned the

difficulties faced by teachers in countries with significantly different time zones, such as Australia.



I had a situation where, when I needed to develop these levels of knowledge, I would conduct lessons in my free time at 7 p.m. I would conduct lessons only for those children who were abroad. I wanted them to read to me, to listen and speak with me, because there was no other way.

Teacher, Chernihiv oblast

The forced displacement also increases the workload of those teachers whose students are abroad, through communication with them, holding additional classes or providing consultations for them, particularly in the evening or at weekends.

Psycho-emotional state

When asked directly about their psychological state, the answers of school staff in the in-depth interviews were mostly limited to “we are holding on and believing in the best and victory”. However, in their stories about other topics, such as worrying about their students and the first months of the full-scale invasion, they mentioned signs of deteriorating psychological health, including depression, anxiety, and so on.

Among the most obvious factors are injuries, deaths of friends, colleagues, and students due to hostilities, physical destruction and damage to their schools and the hromada as a whole, the experience of occupation and evacuation, long hours of remote work without visiting the workplace, and regular power outages.



The depressive state is such that it’s as if half of you was torn off. I can’t even describe it.

Teacher, Kyiv oblast

The destruction and damage to school buildings and property caused significant emotional distress. Principals, teachers, and administrators have invested years of time, effort, and sometimes even their own money to create the best possible educational environment for children. Describing their reaction to the damage to their schools, they compare it to the loss of their own home, recalling the tears, despair and heartache they felt at the sight of the destruction.



We felt every hit as a kind of loss. Because for many years we have been making a great contribution to making the facilities look more or less decent. When you realise that we are under shelling, you feel this loss, like the loss of some of your own property.

Representative of the hromada education department, Chernihiv oblast

This impact is still being felt today, especially in the case of teachers who work in schools that have been severely affected but continue to be used.



When you are sitting and the window overlooks this destroyed part, you know, it... We are used to it, to this picture outside the window. But as for me, subconsciously this picture affects us in one way or another. That you see this destruction. That you walk around and see this destruction every day.

Teacher, Chernihiv oblast

The teachers from the schools where education is conducted exclusively in distance format told us in in-depth interviews that it is harder for them to work in such conditions, having not seen their students and colleagues for a long time.



And you realise that, God, we were so happy, we didn't appreciate it. We used to go around the school and run to our children. And now we're standing in the staff room, and they tell us that's it, goodbye, go home. And no one moves. Everyone is standing there like this. They tell us to go, that's it, you are not needed. We were glad to see you. And everyone stands there and says that we are happy here and we want to come back as soon as possible so that our children can go to school.

Teacher, Kharkiv oblast

It was not only their psychological health that suffered as a result of the war — some teachers were injured as a result of active hostilities in the hromadas where they lived. However, they continued to work in these conditions.



And so I came home from the hospital, and I couldn't pass it all on to my colleagues to teach my classes for me, and write a journal. I walked to work on crutches, I walked with a cane, I did it all. I wrote everything myself, helped the children myself, and issued certificates of secondary and incomplete basic education.

Teacher, Chernihiv oblast

In the in-depth interviews, the teachers and principals said that since the start of the full-scale war, relationships in their work teams have generally improved, and they have become more sympathetic and united. Some of them also noted that the war has changed their attitude to workplace conflicts and communication with colleagues.

“ Everyone is worried, everyone is anxious, and there are minor conflicts somewhere. But we remember the events that we experienced, and it seems not so scary compared to what we saw.

Teacher, Kyiv oblast

In the hromadas where active hostilities were taking place, some teachers lived together to save their colleagues whose homes were in more dangerous locations.

“ When we had hostilities, you would not believe who we shared basements with. With our colleagues. Do you understand? I had a colleague of mine staying with me, because she lived at the outskirts of the city, and everything that was happening was done over her house. Poor people, they would crawl out, you know? And we took them out, and met them with [my] mother.

Teacher, Chernihiv oblast

3.3 Displacement of students and teachers

This part presents data on the displacement of students and teachers both for the whole of Ukraine and for the oblasts that were the focus of the study. This part also focuses on the problems and challenges that education stakeholders have faced as a result of having to leave the place where they were permanently residing before the full-scale invasion. In addition, we mention ways to reduce the impact of these restrictions at both the systemic and individual levels.

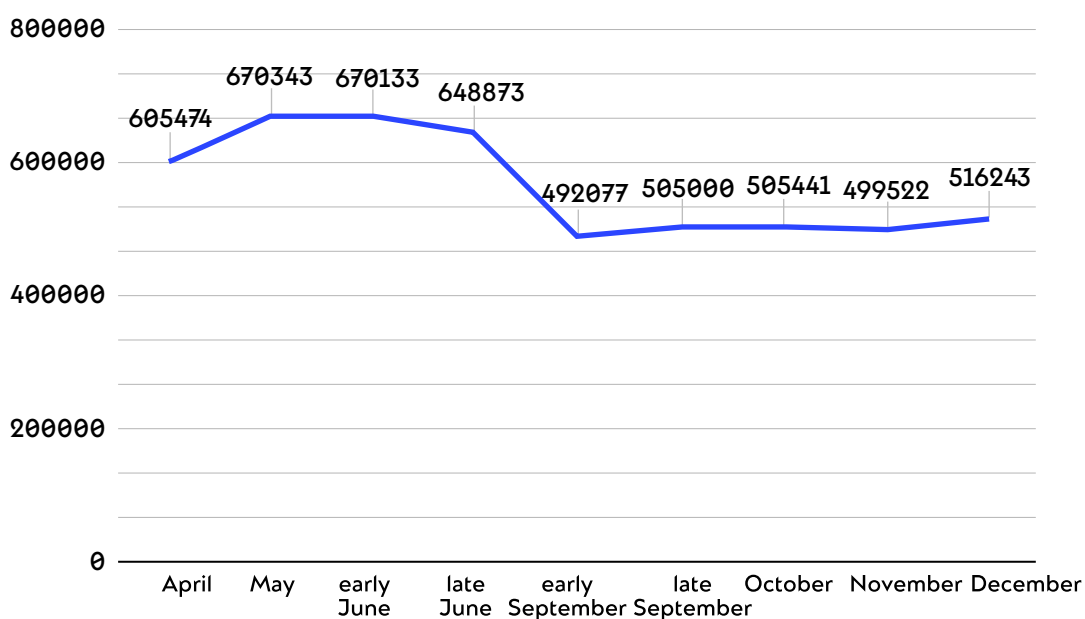
Nationwide data

The number of students and teachers who were forced to stay abroad as a result of the full-scale invasion varied throughout the year. According to the MoES⁴⁴, as of April 15, 2022, 605,474 students went abroad, which

⁴⁴ MoES. Overview of the current state of education and science in Ukraine in the context of Russian aggression (April 10–16, 2022). <https://drive.google.com/file/d/1zMRhcZ36rkJTn16T51VQn8npLxAkA1d/view?usp=sharing>.

was 14% of their total number in the 2021/2022 school year (4.23 million), and 22,669 teachers, which was 4% of the total in the same school year (about 434 thousand). The largest number of teachers and students were abroad in the spring. Since the MoES does not collect data on the number of participants in the educational process who have returned from abroad, it is difficult to estimate what this number was. At the same time, it is possible to trace the dynamics of the decrease in the number of students and teachers who were abroad. The graphs below present data from April to December, collected from the regular notes "Overview of the current state of education and science in Ukraine in the context of Russian aggression" prepared by the MoES⁴⁵. They show that the number of students abroad decreased at the beginning of the 2022/2023 school year, down to 492,077.

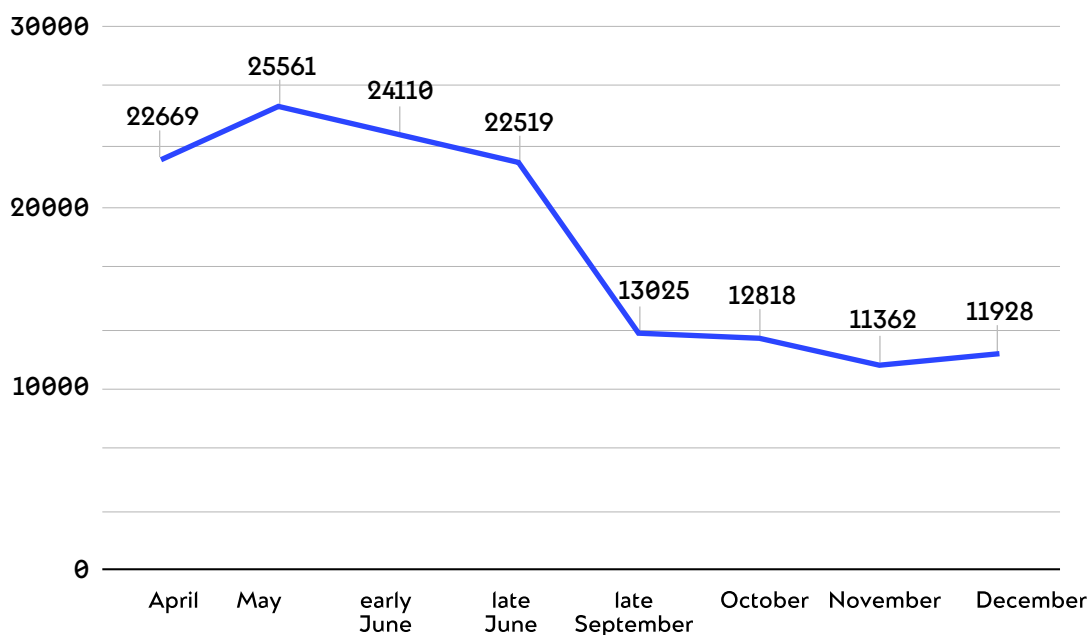
Figure 19. Number of students who continued to stay abroad in 2022



Similarly, in September, the number of teachers abroad almost halved to 13,025.

⁴⁵ MoES. Support for education and science in Ukraine during the war. <https://mon.gov.ua/ua/ministerstvo/diyalnist/mizhnarodna-diinist/pidtrimka-osviti-i-nauki-ukrayini-pid-chas-vijni>.

Figure 20. Number of teachers who continued to stay abroad in 2022



As of December 2022, 516,243 students (13%) were still abroad. Among the students who continue to be abroad, most of them left the eastern and southern regions, which are still partially under occupation, where active hostilities are taking place, or which are located close to the border with Russia. In particular, most people left Kherson oblast (36%), Kharkiv oblast (28%), Donetsk oblast (26%), Luhansk oblast (25%), Zaporizhzhia oblast (22%), Mykolaiv oblast (21%), and Kyiv (19%). Compared to the number of students who continued to stay abroad at the beginning of the 2022/2023 school year, at the end of the first semester, the number of those who went abroad increased significantly only in Luhansk (from 19% to 25%) and Kherson (from 19% to 36%) oblasts (Table 4).

As of December 2022, the number of IDPs among students amounted to 4% of the total number of students. The largest share of students was in Donetsk (39%, 41,061) and Luhansk (37%, 9,942) oblasts (Table 6).

As of December 2022, there were 11,928 (3%) teachers abroad. The highest number of teachers from Kherson oblast (25%), Luhansk oblast (14%), Donetsk oblast (11%), Zaporizhzhia oblast (11%), and Kharkiv oblast (10%) continued to stay abroad (Table 5).

The oblasts considered in this study have different scales of teacher and student displacement in accordance with the different durations of hostilities and temporary occupation.

Regional characteristics

Chernihiv oblast

As of the beginning of the 2022/2023 school year, 9,111 (10%) students left Chernihiv oblast for other countries, and 3,097 (3%) returned. There were 3,217 students (3%) who left the oblast. As of the end of December, 8,667 (9%) students were still abroad, and 1,343 (1%) students were outside the oblast. The largest share of students in Chernihiv oblast came from the Chernihiv hromada, where 5,681 (20%) students went abroad at the beginning of the school year, and 2,822 (10%) students went outside the oblast. While the number of those who were abroad remained almost unchanged as of December - 5,586 (20%), the number of those who were outside the oblast decreased to 928 (3%).

Chernihiv oblast is one of the oblasts where a rather small proportion of teachers continue to be outside the oblast. According to the Chernihiv RMA, 202 (2%) teachers returned to the oblast at the beginning of the school year. As of December, 183 (2%) teachers were still abroad, and 14 (0.1%) were outside the oblast.

Kyiv oblast

According to the Kyiv RMA, as of the beginning of the 2022/2023 school year, 26,107 (11%) students were outside Ukraine, and 2,162 (1%) students returned from abroad. The number of students outside the oblast within Ukraine was 8,604 (4%). As of the beginning of the school year, 7,375 (3%) IDP children were enrolled in schools in Kyiv oblast.

As of December 2022, there was a slight decrease in the number of students who continued to stay abroad — 24,909 (10%); and a slight increase in the number of those who stayed outside the oblast within Ukraine (4%). The largest share of children left Irpin, Vyshneve and Vyshhorod hromadas — more than half of the number of students enrolled in the 2022/2023 school year. It is noteworthy that in other hromadas that were significantly affected, the share of those who left the region (both abroad and within Ukraine) is quite small. For example, in Borodianka hromada, where 93% of schools were affected, only 6% of students were outside the oblast as of December. It can be assumed that the rest of the students moved out of the settlement within the oblast. It is noteworthy that in some hromadas where the educational infrastructure was not damaged, such as Zolochiv and Pereiaslav hromadas, a fifth or more of the students are outside the oblast.

Table 1. Distribution of hromadas with the largest share of students who went abroad and within Ukraine

District	Hromada	Share of students abroad	Share of students outside the oblast within Ukraine	Share of schools affected
Bucha	Irpin	47%	13%	45%
	Vyshneve	42%	29%	13%
	Hostomel	31%	15%	100%
	Bucha	18%	13%	52%
Vyshhorod	Vyshhorod	33%	30%	22%
	Dymerka	8%	15%	55%
	Petrivtsi	13%	7%	50%
Boryspil	Zolochiv	25%	5%	0
	Pereiaslav	16%	5%	0

Kharkiv oblast

Compared to Kyiv and Chernihiv oblasts, more teachers and students left Kharkiv oblast due to the longer period of occupation of the region and the ongoing hostilities. According to the Kharkiv RMA, as of the beginning of the school year, a third of students left the oblast (67,302 — 30%), and another 29,134 (13%) relocated within Ukraine. As of December 2022, most of the students who left the oblast (both abroad and within Ukraine) came from Iziurm, Kharkiv, and Chuhuiv districts, which were most affected by the Russian aggression. At least 60% of students have left hromadas with 100% of their schools damaged. In some of these hromadas, almost all school-age children have left the region: Tsyркuny — 95%, Borova — 95%, Zolochiv — 99%, Vilkhuvata — 100%. In most hromadas, the largest share of children left within Ukraine, with the exception of two hromadas in Kharkiv district, where more than half of the students left for other countries - Tsyркuny (61%) and Lyptsy (56%).

Table 2. Distribution of hromadas with the largest share of students who went abroad and within Ukraine⁴⁶

District	Hromada	Share of students abroad	Share of students outside the oblast within Ukraine	Share of schools affected
Izium	Barvinkove	19%	56%	73%
	Balakliia	27%	59%	100%
	Borova	40%	55%	88%
	Savyntsi ⁴⁷	35%	80%	60%
	Oskil ⁴⁸	25%	89%	100%
	Kunie	11%	62%	80%
Kharkiv	Dergachi	33%	48%	100%
	Lyptsi	56%	29%	90%
	Mala Danylivka	29%	56%	50%
	Vilkhivka	27%	34%	100%
	Tsyrkuny	61%	34%	100%
	Rohan	30%	39%	100%
Chuhuiv	Pechenihiy	18%	41%	75%
	Chuhuiv	28%	24%	75%
Bohodukhiv	Zolochiv	16%	83%	100%
Kupiansk	Vilkhuvata	14%	86%	50%

There were 64,284 IDP students enrolled in the oblast's schools, which is 29% of the total number of students. 1,812 (9%) teachers left the region, and another 1,932 (10%) went abroad.⁴⁹

⁴⁶ The table shows data from hromadas where more than 50% of students left. It is also worth noting that we did not receive complete data from the Kharkiv RMA on the number of students who left some hromadas in Chuhuiv, Kupiansk and Kharkiv districts.

⁴⁷ The data on this hromada was received in this form from the Kharkiv RMA, the total share of children abroad is 115%, which means that there are some inaccuracies in this data.

⁴⁸ The data on this hromada was received in this form from the Kharkiv RMA, the total share of children abroad is 114%, which means that there are some inaccuracies in this data.

⁴⁹ Data from the MoES.

Teachers' relocation

In the first semester of the 2022/2023 school year, a small number of teachers were abroad and were able to teach online. According to the principals and government officials, several teachers who left Ukraine resigned because they could not carry out their job duties, particularly if the school switched to a mixed or in-person mode of study, or because they did not plan to return to Ukraine.

At the same time, the principals claimed that there were no problems with teaching staff in their schools due to teacher transfers, and assessed the situation as "stable" or "normal". Some schools have hired new staff to fill vacant positions. A school principal in Chernihiv oblast noted that they are trying to replace those who have left "on their own".



As of today, there are already 6 of our teachers who had to resign because their place of residence abroad did not allow them to work even remotely. Although I was very flexible, I believe, I tried to keep everyone. That is, different conditions. Please, just join in. And all the distance classes were posted, and reformatted. Just to keep them all. To me, this is the most terrible thing.

Principal, Chernihiv region

Students' relocation

According to the teachers, they asked parents before the start of the 2022/2023 school year where they were and whether they planned to return. This influenced their decisions about their children's education, including the mode of study. In the interviews, they noted that the number of students has not changed significantly, mentioning that "some come, some go".

Some parents who moved abroad decided to terminate their children's education in Ukrainian schools. Other parents decided to transfer their children to family schooling. Some of those who moved abroad received a certificate of education in Ukrainian schools, and therefore have the opportunity not to attend educational institutions in the countries where they are staying.

This decision was influenced, in particular, by the legislation of the countries to which they had moved, as in most countries, attendance of general secondary education institutions is mandatory for temporarily displaced persons. Instead, IDPs had to choose one school due to the

impossibility of studying in two Ukrainian institutions at the same time due to regulatory restrictions.

According to the interviewees, relocation of students abroad is accompanied by increasing workload for those who study in Ukrainian and foreign educational institutions at the same time. In the interviews, the teachers indicated that such children find it “difficult”, “complicated”, “they are tired”, “they are exhausted”. This may have been exacerbated by difficulties in adapting to the new environment, including language or cultural differences.

“ [Students’ mother] said, “we will study”, even though it is difficult for them. Because the girl attends a German educational institution, she studies 6 days a week. But they still do their assignments, and if possible, they sometimes take online classes, combine them, although it is very difficult for them.

Principal, Chernihiv oblast

The teachers mentioned that some children who are outside of Ukraine can connect to online lessons when there are no classes in foreign educational institutions, as well as during vacations. Some of these students have switched to family schooling instead of studying only at school in the country of temporary residence. This is likely due to the fact that parents are planning to return to Ukraine and do not want their children to lose their places in Ukrainian schools and their connection with them. At the same time, this may contribute to a deterioration in educational outcomes.

“ We have children in Finland, Germany, Latvia and Austria. In the morning, they go to their institution, because they have the same requirements, they have to be there too, to study and learn their language. And in the afternoon — our teachers.

Parents, Kharkiv oblast

Students who were displaced within Ukraine may not have immediately adapted to the new environment. At the same time, according to some teachers from the hromadas in the study, IDP children did not have difficulties adapting to their school hromada. One of the principals noted that they tried to distribute IDPs evenly in their school so that there were not too many or too few students in the classroom.

Residents of one of the hromadas in Kharkiv oblast, which is located near the border with Russia, mentioned the problem that, despite legal restrictions, some IDP children study in two Ukrainian schools at the same time. Since some of the students have moved to safer regions, they can study there in person, while in their “native” school they study remotely. Although such cases were rather rare in the first semester of the 2022/2023 school year, some interviewees mentioned them. They said that in the spring of 2022, they “turned a blind eye” to this fact, but from the new school year, school administrations were forced to ask parents to decide which school their children would attend to avoid receiving an educational subvention for the same child twice. As a result, some parents withdrew their documents from schools in Kharkiv oblast.



[Parents] said that they were sorry, but we would probably go to a school with a real teacher, not a virtual teacher.

Teacher, Kharkiv oblast

The displacement of students includes not only relocation to regions of Ukraine far from active hostilities or abroad, but also within regions where the front line lies. For example, students from occupied settlements or de-occupied settlements with destroyed infrastructure, including Kupiansk, have moved to a school in one of the hromadas in Kharkiv oblast. Some of these children returned to their hromadas after the de-occupation and continue to study in their “native” schools. At the same time, some IDP students continue to live in the hromadas we studied because they cannot return to the hromadas they left for a number of reasons, including destroyed housing or infrastructure. However, after distance learning was restored in their “native” schools, they stopped studying in schools that were the focus of our study and returned to the schools they had attended before the full-scale invasion.

The respondents from the hromadas of Kharkiv region mentioned that during the occupation, some parents and their children were displaced or deported to Russia⁵⁰. Some of them later left for other countries, while others stayed in Russia and went to Russian educational institutions. At the same time, some of them did not return to Ukraine even though their settlements were de-occupied in the autumn. Some of the students and their parents have lost contact with them. The teachers also noted that, according to their observations, most parents did not want to attend

⁵⁰ According to the National Information Bureau, as of February 6, 2023, 16,222 children have been deported from Ukraine. (<https://www.ukrinform.ua/rubric-ato/3666197-z-ukraini-deportuvali-16-222-ditini.html>).

Russian schools, and therefore, even while still in Russia, they remotely attend Ukrainian schools. At the same time, one of the principals mentioned the issue of what to do with students whose parents are in the occupied territories or have left for Russia.



We do not understand what to do in this regard. We cannot expel them. Maybe in six months. Again, the child is not to blame for what is happening.

Principal, Kharkiv oblast

According to the teachers from hromadas in Kharkiv oblast, some students relocated within Ukraine or the oblast if school staff in their locality cooperated with the occupation administrations. Some schools also provide distance learning for children who are currently living in the occupied settlements and do not have the opportunity to study according to the Ukrainian school curriculum.

Classes have been transformed by the displacement of students. In some schools, there are classes that are taught only remotely because they consist of children who are abroad. For example, in a school in a hromada in Chernihiv oblast, which had distance learning for the first semester of the 2022/2023 school year due to renovations, there is a division into in-person and distance classes. After the repairs are completed, the in-person classes will return to school. Instead, the distance classes will continue online learning, as they are attended by those who have gone abroad. These changes could have affected the psycho-emotional state of students, as, according to the interviewees, students miss their friends who have moved and therefore moved to a different class.

The teachers mentioned that one of the challenges is the inability to gather the class at the same time. In addition, they mentioned the inconsistent number of students due to the fact that students return or leave.



If our children are abroad, we know that they must attend classes at local schools. That's why they attend our classes either in the afternoon or at a time convenient for them, as agreed with the teachers. That is, we cannot gather the whole class at the same time to hold a lesson.

Member of the regional council, Kharkiv oblast

Conclusions

- The overwhelming majority of children (90%) have at least some kind of gadget for studying, most often a mobile phone, but the availability of a gadget for studying and workplace depends on the socioeconomic status of the family. The highest proportion of children who study with a phone is among children from families with the lowest income⁵¹ – 69%.
- The data from the survey and the in-depth interviews show that during the full-scale invasion, parents became more involved in their children's education. Parents of students in grades 1-4 are the most involved, while parents of high school students are the least involved.
- Students studying distantly have, on average, a higher workload outside of class than students studying in classroom or mixed modes. 17% of parents of children studying distantly said that their children spend more than 5 hours studying at home every day in addition to attending classes.
- 22% of the respondents from the northern and eastern oblasts believe that their children have missed more than 30 days of school since the beginning of the invasion. At the same time, parents' estimates of lost schooling time are likely lower than the true number of missed school days due to the war. Therefore, estimating lost learning time remains a challenge for future research.
- The overwhelming majority (85%) of parents believe that the learning gaps in knowledge and skills that children have experienced as a result of the pandemic and the full-scale invasion will have an impact on their education and future.
- The majority of the parents (72%) believe that additional measures are needed to compensate for learning gaps. The most popular measures include additional classes at schools, tutoring, and studying the material on their own/with the help of their families⁵². At the same time, only such measures as extending and repeating the school year are less popular among parents and are not supported by teachers.

⁵¹ To the question "Which of the following statements most accurately describes the financial situation of your household at the moment?" the option "Not enough money for food" was chosen (all options: "Not enough money for food"; "Enough money for food, but not always able to buy clothes"; "Enough money for food and clothes, but not always able to buy household appliances"; "Enough money for household appliances, but not able to buy a car or apartment"; "We can buy a car and other things of similar value").

⁵² The respondents could choose several answers.

- 61% of the parents observe symptoms of stress in their children, such as deterioration in the quality and duration of sleep, problems with concentration, difficulties in communication, etc. Children have a high level of anxiety – 42% of the parents observe their children’s anxiety, and another 14% believe that their children are anxious often or all the time.
- The need to study remotely makes children feel lonely. 24% of the parents mentioned lack of communication as one of the main problems of their children.
- Teachers, particularly those in hromadas where active hostilities were taking place or that were occupied, experienced significant stress and deterioration in their psycho-emotional state with the start of the full-scale invasion. This was also affected by the damage or destruction of their schools by Russian forces. The teachers described the feelings they experienced as depression, a sense of loss, sadness for the past, etc.
- Due to the full-scale invasion, some students and teachers were forced to change their place of residence. In April 2022, 605,500 students (14% of the total) and 23,000 teachers (4% of the total) left Ukraine. Some of them returned to their hromadas before the start of the new school year. As of December 2022, 13% of students and 3% of teachers continued to stay abroad.
- Some of the parents who moved abroad wanted to keep their children in Ukrainian schools and maintain their connection with them. Therefore, some students continued to study at a Ukrainian school distantly, while some parents transferred their children to a homeschooling program. This increases the workload of both students and teachers: some teachers mentioned additional classes or tutorials for students who were abroad.
- Some students from settlements where there were hostilities, temporarily occupied or de-occupied, but with damaged or destroyed infrastructure, moved to safer regions of Ukraine, where they could transfer to a local school or continue their studies at their previous school in a remotely accessible format. At the same time, some children returned to their hromadas after the end of active hostilities or de-occupation and continued their education in their “native” schools.

- Some parents and children were forced to relocate or were deported to Russia during the occupation. Some of them continued to attend Ukrainian schools in the first semester of the 2022/2023 school year, even though they probably should have attended Russian general secondary education institutions. Some students who were in the temporarily occupied settlements during the first semester of the 2022/2023 school year studied distantly in Ukrainian schools.

Part 4. Restoration of educational infrastructure and cooperation of hromadas and schools with stakeholders

The issue of post-war reconstruction of Ukraine, and in particular the restoration of educational infrastructure for universal access to quality secondary education, is ambivalent. On the one hand, active hostilities are ongoing in parts of the country, large areas of Donetsk, Luhansk, Zaporizhzhia and Kherson regions, the AR of Crimea and Sevastopol are under temporary occupation, the country is subject to regular rocket attacks, and it is impossible to predict the duration and scale of hostilities.

On the other hand, secondary education is an extremely important public good and a right guaranteed by the Constitution of Ukraine, and restoring access to it is a priority for the state. In addition, some schools are not too badly damaged and can be reopened quickly with the investment of resources, while more seriously damaged buildings require conservation to avoid further destruction, so some rehabilitation work is advisable and/or necessary as soon as possible.

This part will discuss how the restoration of school buildings and educational environments is planned and implemented, as well as providing access to secondary education in the context of full-scale war, which external stakeholders are involved in these processes, and how hromadas and schools interact with them.

4.1 State policy on restoration of damaged and destroyed schools

Planning for the restoration of infrastructure destroyed during the full-scale war began shortly after the retreat of Russian troops from northern Ukraine, and on July 4, the Ukrainian government presented a draft 17.4 billion USD Fast Recovery Plan of Ukraine at the International Conference on Ukraine's Recovery in Lugano. The plan included the restoration of damaged and destroyed schools, particularly in Kyiv, Sumy, and Chernihiv oblasts.

During the summer of 2022, funds were allocated from state and local budgets at various levels to restore those schools that had minor damage. First of all, it was about replacing broken windows and doors and repairing damaged roofs.

For example, 400 million UAH was allocated from the state budget reserve fund to immediately eliminate the consequences of Russian aggression in Kyiv region, which was used to repair the minor damage mentioned above⁵³.

In October 2022, the Verkhovna Rada established the Fund for Elimination of the Consequences of Armed Aggression as part of a state budget's special fund to eliminate the consequences (including humanitarian, social, and economic) caused by Russia's armed aggression against Ukraine⁵⁴. This Fund will be filled with confiscated Russian property in Ukraine and NBU profits and be used to restore, among other things, construction, the overhaul of public buildings (which were destroyed or damaged as a result of the Russian armed aggression), development of design and estimate documentation for destroyed facilities; purchase of school buses, purchase of computer and multimedia equipment for educational institutions located in the territories where there were hostilities. The Fund's budget for 2023 is 52 billion UAH.

In addition to immediate recovery, a longer-term plan is being developed that includes not only the reconstruction of destroyed infrastructure, but also development in the education area, for example, measures to ensure access to education in wartime, the continuation of the NUS reform and the development of the more capable school network⁵⁵. In December 2022, based on this plan, the MoES presented its education development program, but this document is more of a declaration of intent than a specific action plan and does not contain steps and deadlines for its implementation or a budget⁵⁶.

In the medium term, Ukraine's post-war recovery, according to the plans of the authorities, is to be carried out with a broad involvement of

⁵³ Kyiv Regional Military Administration (2022) Oleksiy Kuleba: ongoing roof repairs, replacement of windows and doors are underway at 248 facilities, 52 have been completed. (video). <https://koda.gov.ua/oleksij-kuleba-potochni-remonty-pokrivel-zamina-vikon-ta-dverej-tryvayut-na-248-obyektah-po-52-h-roboty-zaversheno-video/>.

⁵⁴ Verkhovna Rada of Ukraine (2022) The Verkhovna Rada of Ukraine adopted a law on the establishment of a fund for the elimination of the consequences of armed aggression. <https://www.rada.gov.ua/news/racom/229375.html>.

⁵⁵ Ukraine's recovery plan. <https://recovery.gov.ua/>.

⁵⁶ MoES (2022) The Minister of Education and Science of Ukraine presented the program of a major transformation "Education 4.0: Ukrainian Dawn".

international partners' funds and with a focus on Ukraine's integration into the EU. However, these plans also remain rather general.

4.2 Collecting information about the damage

One of the first steps of the hromadas with damaged schools was to establish officially the fact of the damage and collect information about its scope. This information was collected in three stages. The first was operational data, which included reports from school and hromada authorities about the fact of damage or destruction and its general nature, as well as about injured or killed participants in the educational process. This stage took place during active hostilities and/or temporary occupation:





On March 6, it (missile) landed in the evening at our school. My colleagues were there, a teacher and her family were there, and the security guard called me. I don't live far from the school, but there was a curfew. So I couldn't come at that moment. It seemed to me that it was half past seven, around 7:30. I was on the phone all the time, calling all possible services, because, as I was told on the phone, "The school is on fire!" That is, there was some kind of fire. And I realised that if, God forbid, there might not be anything left there at all.

Principal, Chernihiv oblast

If school principals remained in their hromada during these periods, they collected and passed information about these damages and destructions directly to the hromada education department, or if they were evacuated, they received it from school staff who remained in the hromada. According to the interviewed education departments in Kyiv and Chernihiv oblasts, during the period of active hostilities, the hromada education departments collected data on the state of educational institutions, updating it after each shelling. The educators testified that they constantly kept in touch with each other: principals with teachers, teachers with parents and students, and education departments with principals, as far as possible in the face of power and connection disruptions.

This operational information about damaged and destroyed schools was passed to the regional level, and from there to the government⁵⁷.

Depending on the nature, intensity and duration of the hostilities and temporary occupation, the initial collection of information was more or less complete and timely. In Kharkiv oblast, access to information about hromadas under temporary occupation was very limited, so information about damage and destruction of schools received by educational administrations in the government-controlled area was fragmentary, delayed or not received at all. Therefore, the full picture of the damage to educational infrastructure in this oblast became clear only in October–November 2022, after de-occupation and the restoration of connection. In one of the hromadas of Kharkiv oblast, information about the destruction of the school was also received from the military, who were in the settlement.

Collecting and sharing information about the damage and destruction of schools in the temporarily occupied territories and the area of active hostilities created security risks for educators and managers and required significant efforts:

⁵⁷ In particular, this information was used to create and update the map: <https://saveschools.in.ua/>.

“

People worked remotely, to say the least. They did not have the opportunity to use a computer or anything else. And, well, they dictated something [information about the state of schools] over the phone, and I wrote something down by hand. And then somehow, either on a computer or also by hand, I took pictures in order to somehow compile this information. But I'm talking about the shelling. As for the occupation, it's actually almost impossible to get information. Because people usually have no connection or it's some Russian mobile operator. And we don't know how to phone them. Or there is no connection at all. And there are cases when they go to some hill to make a call and are shot. And these are not isolated cases. So it's not worth it, you know? The information that needs to be collected is not worth people's lives at all. So, as for the occupied territories, I can say, probably, we did not... Until they came out of the occupation, some in September, and some later, in October. When they were under occupation, we had no information at all.

Representative of the regional department of education, Kharkiv oblast

The second stage of information collection took place after the end of active hostilities and/or de-occupation. It was the responsibility of local government representatives. Their actions were regulated by the legislation and the explanation from the Ministry for Communities and Territories Development of Ukraine adopted and published in April-August 2022. At this stage, representatives of local authorities inspected the school building, took photos and videos of the damage, and compiled this information in a visual inspection report:

“

On April 10, we resumed our work. And so we started collecting information with photos and videos of the state of schools. In fact, since then, somehow, it has become calmer in Kyiv. And the territory of Sumy oblast was more or less liberated. Through various government agencies, including the Ministry for Communities and Territories Development and the Ministry of Education, we started collecting information about the damage. We first collected our information, and then passed it on to the municipality, the regional department of education, and the regional military administration, and we began the process of recording the damage we had after the liberation of the territory.

Representative of the hromada education department, Kyiv oblast

On June 24, 2022, the Ministry for Communities and Territories Development issued an order to create a system for monitoring damage and destruction. This system is to include data on residential and public buildings affected by the armed aggression of the Russian Federation, including schools, with an indication of the degree of damage (less than

20%, 20-40%, more than 40%)⁵⁸. At the time of writing, there is no public information on whether such a system has been created and whether data on affected schools has been collected.

The third stage (which in some cases took place simultaneously with the second, and in some cases was delayed) was the preparation of a technical report on the condition of the structures, which determines whether the building is in satisfactory condition and the extent of the damage. According to the interviewees, this stage of damage assessment can be a problem for the hromada, as it requires the involvement of technical specialists whose work needs to be paid for, and resources were not always available. In Kharkiv oblast, this work was performed by specialists sent by the oblast authorities, while in Chernihiv city, the preparation of technical reports was paid for by a non-governmental organisation.

In addition to information about the condition of the building, local authorities recorded lost or destroyed property according to inventory lists, and in case of looting, filed a crime report with law enforcement agencies.

The cost of damaged and destroyed educational infrastructure was not estimated by local governments in the hromadas that were the focus of this study, but at the oblast level in Chernihiv oblast, we received information on the total estimated losses in the education sector of more than 14 billion UAH. Given that accurate data on the damage to each school is not collected at the national level, the available estimates of the cost of damage, firstly, relate to buildings, but do not include the cost of losses in the educational environment (furniture, equipment, teaching supplies, etc.), and secondly, are rather approximate and reflect the cost of reconstruction rather than the amount of damage — because many schools are old, and it is impossible to establish the cost of elements of a building that was constructed decades ago.

According to education departments, information on damage, destruction and lost property is collected regularly and at the request of various authorities, including the President's Office, the MoES, the Ministry of Regional Development, and the RMAs. This activity creates an additional burden on principals and hromada education departments:

⁵⁸ Verkhovna Rada of Ukraine (2022) Procedure for the implementation of a pilot project to monitor the damage and destruction by regions of Ukraine as a result of the armed aggression of the Russian Federation based on a geographic information system. <https://zakon.rada.gov.ua/laws/show/726-2022-%D0%BF#n16>.



Everyone is collecting basically the same things, but different ones. And our poor educational authorities in the hromadas, well, they are already at war here, and now they have to submit 20 reports.

Representative of the regional department of education, Kharkiv oblast

However, after collecting the data for this report, it can be assumed that different oblasts request slightly different data from hromadas, and there is no consistent and systematic collection of information on losses in educational infrastructure and damage to the educational environment.

4.3. Conservation and reconstruction of buildings

In Kyiv and Chernihiv oblasts, the first stage of reconstruction — repairing slightly damaged schools and preserving more heavily damaged ones — has begun quite actively.

In Chernihiv oblast⁵⁹ 59% of damaged schools, or 41 institutions, have been repaired. In 7 hromadas, all damaged schools were repaired — but these were hromadas where 1–2 schools were damaged. According to a representative of the regional authorities, by the beginning of 2023, most of the work on repairing damaged educational institutions had been completed. Its active phase took place during preparations for the new school year. There are 20 schools in the process of being restored in the region, and 6 more schools need to be restored. All ongoing repairs in the region are expected to be completed by 2023.

In Chernihiv hromada, which suffered the most from the destruction of educational infrastructure in the region, 18 out of 27 affected schools have been repaired. Two of the destroyed schools were closed, and one of the damaged schools was closed due to a lack of students, so out of the remaining 31 schools, 23 are operating, 7 are under repair, and one is not teaching full-time due to the lack of cover. Chernihiv hromada also plans to complete the restoration of all school buildings by the beginning of the 2023/2024 school year to return to classroom education.

In Kyiv oblast, 71% of the schools that were damaged have been repaired — 87 institutions. In 10 hromadas, all affected schools have been restored. In particular, 10 schools were repaired in Borodianka and Bucha hromadas, 11 in Makariv hromada, and 8 in Ivankiv hromada.

⁵⁹ As of January 25, 2023.

In Kharkiv oblast, however, there has been virtually no recovery. Only 13 of the 296 affected schools were repaired. This can be explained by the much later de-occupation of Kharkiv oblast compared to the other two oblasts, the continuation of hostilities in part of the region and intense shelling, and the much larger scale of destruction.

According to a representative of the regional government, hromadas that had been under occupation for a long time and/or had suffered significant destruction faced the need to restore critical infrastructure and housing after liberation. At the same time, a significant number of their residents evacuated to safer and more comfortable conditions after de-occupation. Therefore, the restoration of damaged schools is not a top priority because a lot of students have left the hromadas and cannot return due to destroyed housing and critical infrastructure.



We have 14 schools, and 5 of them are completely destroyed. But not only educational institutions were destroyed, the neighbourhoods of the villages were also destroyed. And I understand that there will be restoration. It is not enough to restore the institution itself. It is necessary to restore the housing. Will people want to come back? How fast will it happen? How quickly will they return? This will be decided according to the circumstances that will develop at the moment.

Representative of the hromada education department, Kharkiv oblast

However, the oblast plans to continue restoration work within the available resources. The priorities in restoring the damaged buildings are conservation, repairing damaged roofs and heating systems to prevent the buildings from deteriorating further due to moisture and cold.

In the hromadas that were the focus of this study, school restoration is at different stages, and the information received from them allows for detailing the stages of school restoration.

Schools that have suffered minor or moderate damage have been restored by local authorities to a condition suitable for use in a classroom-based or mixed mode, or have been preserved to prevent the building from deteriorating.

In the institutions that were damaged but not destroyed, employees carried out conservation work (boarding up broken windows and doors, draining water from the heating system, etc.) immediately after the attack, sometimes at the risk of their own safety:



I wrote to the group again: "Dear colleagues, we had a disaster. Our school was hit. If you have an opportunity, tomorrow we are all going to meet at school." That is, people read it. That is, whoever could. Not many people came. [...] You know, we were boarding up the windows, and it was whistling all over us.

Principal, Chernihiv oblast

After the end of hostilities and/or de-occupation, schools were inspected, debris and remnants were removed, and rubble was cleared. In many schools, teachers and parents were involved in this process. The latter took the initiative to help restore their children's schools. There is also evidence of the involvement of volunteers from outside the hromada or settlement — in Kyiv oblast, civil engineering students and people who just wanted to help came to the hromadas to clear the rubble and remove construction waste.

After inspecting and assessing the damage in schools that were not completely destroyed, repairs began. This mainly involved replacing windows (their number is very significant — hundreds for each school), doors, repainting classrooms and corridors, and in some cases repairing the roof and heating system. In some of the surveyed schools, the damage was in a separate part of the building, so the destroyed part was isolated, while the rest of the building was repaired and continued to be used.

In one of the studied schools (in Kharkiv oblast), which was completely destroyed, no reconstruction was carried out at all, and students are studying distantly. Instead, a school in Kyiv oblast, which was recognized as dangerously damaged, was conserved (the roof was restored and windows and doors were replaced) through joint efforts of local authorities and the International Committee of the Red Cross. Major repairs are planned to begin there as part of the Ukraine Recovery Program⁶⁰ funded by the European Investment Bank.

According to educators and administrators, not only the participants of the educational process but also local businesses and ordinary residents of villages and towns are actively involved in the restoration of schools in hromadas. This includes the aforementioned participation in the removal of rubble and the contribution of building materials and labour to school repairs.

⁶⁰ Ministry for Communities and Territories Development of Ukraine. Order, issued 09.12.2022 No. 253 "On Approval of the List of Projects Financed by Subventions from the State Budget to Local Budgets for the Implementation of Projects under the Program for the Restoration of Ukraine". <https://zakon.rada.gov.ua/rada/show/v0253914-22#Text>.

In one hromada in Kyiv oblast, local residents organised a crowdfunding campaign to raise funds to restore windows in their school:

“ Yes, we put jars and boxes in our stores and wrote what they were for. And people who wanted to donate did so. Some people just brought it to the school, collected it, and then the windows were bought.

Teacher, Kyiv oblast

In addition, local authorities are trying to make efficient use of available resources: in two hromadas, materials from other schools that were also damaged but not yet restored (e.g., roofing elements, heating systems, furniture) are being used for repairs.

In one school in Kyiv oblast, most of the restoration work was done by school staff and the village community::

“ The team united and decided, thanks to the village chairman, who helped us and found funding opportunities, to seek out local entrepreneurs and look for anyone who could help. We approached everyone with our requests. Because, you know, even to plaster something, to make some redecoration, you need to have some money or material. So we were provided with it, and people brought us satengypsum and paint. At that time, the government did not help us with any money or anything. We worked on our own. In the summer, all summer long, even though we were supposed to be on vacation. When we had the windows replaced in September, they had been ordered by the Department of Education, and we installed all 158 windows ourselves. They were brought to us, the military helped us unload them and bring them in. And then parents and male residents of the village who could do something about it came to us. And on any day, whether it was a weekend, a working day, or in the evening, they came and helped install these windows.

Principal, Kyiv oblast

Thus, the cost of restoration, at least at the stage of non-capital repairs, is minimised.

In addition to restoring buildings, the schools studied also made efforts to restore the educational environment. With limited resources, the necessary furniture was sought from warehouses or other institutions that were not damaged. In Kyiv oblast, several schools have received or are planning to receive new equipment for classrooms (e.g., maths, chemistry, computer science) and service rooms (for psychologists and social workers) from international organisations and oblast authorities, but there is no evidence

that it was provided to replace the equipment destroyed during the hostilities and occupation.

It is worth noting that hromadas in the restoration process were guided by information collected from schools and on their own about the condition of the premises, losses in the educational environment, and the students' needs. Their partners in recovery planning are the regional military administrations, with whom local education departments primarily interact. The study participants are not familiar with and are not guided by recovery plans at the national level.

The study concludes that leadership in the restoration of educational infrastructure now belongs to local governments that own schools, while the RMAs coordinate these activities at the regional level and are involved in working with stakeholders, primarily international and charitable organisations, on restoration. However, this poses risks to the consistency and systematic nature of restoration at the national level. At the national level, the MoES is making efforts to coordinate projects to provide students and teachers with technical learning tools implemented by international and charitable organisations. Coordination and planning for infrastructure reconstruction should be carried out by the Ministry of Infrastructure, which was recently merged with the Ministry for Communities and Territories Development (the latter has been working with hromadas to finance and coordinate infrastructure projects, such as major repairs to hub schools). However, so far, we have not received any information on the plans of the Ministry of Infrastructure related to the restoration of schools at either the regional or hromada level.

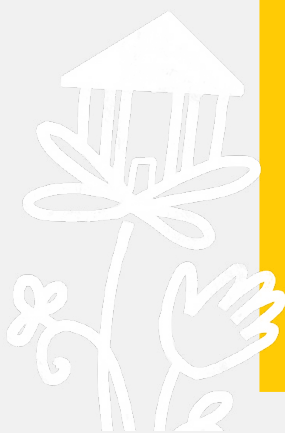
4.4 Restoring access to education

Due to the destruction of school buildings, attacks on energy infrastructure, and the security situation, access to secondary education in Ukraine has deteriorated. The restoration process involves measures to improve accessibility as well as to repair buildings. These include providing teachers and students with technical tools for distance education, building or repairing shelters in schools to enable face-to-face or distance education, and purchasing school buses.

These activities are financed from the state and local budgets, and partially by international partners and charitable organisations.

The state budget for 2023 provides for two subventions to local budgets: for the purchase of school buses (1 billion UAH) and for the repair and construction of shelters (1.5 billion UAH).

In addition, in 2022, school buses were purchased at the expense of the remaining educational subvention from local budgets.



The European Commission has provided 14 million euros from an existing contract with the Polish Development Bank, Bank Gospodarstwa Krajowego, for the purchase of school buses. The Commission also launched a pan-European solidarity campaign to provide school buses to Ukraine through the EU Civil Protection Mechanism. In total, about 240 buses were sent from the EU and its member states⁶¹.

Technical learning aids, including those for distance education (primarily laptops or tablets), are one of the most urgent needs of participants in the educational process, as a significant amount of equipment was damaged or stolen during the hostilities and occupation, and the need for them has increased due to the increasing share of students in distance and mixed modes of education.

As of February 13, 2023, international and charitable organisations and businesses have provided nearly 79,000 technical devices for teachers⁶²,

⁶¹ ReliefWeb (2022) EU and Ukraine sign €100 million for the rehabilitation of war-damaged schools. <https://reliefweb.int/report/ukraine/eu-and-ukraine-sign-eu100-million-rehabilitation-war-damaged-schools-enuk>.

⁶² The information relates to teachers in schools and vocational education institutions.

which is 44% of the need stated by schools⁶³. Another 16 thousand gadgets for teachers are expected in 2023.

About 9,000 gadgets were provided to students, mostly from Dnipropetrovsk, Mykolaiv, Kharkiv, and Zaporizhzhia oblasts. Given that most students in distance and mixed modes of education use phones in the educational process, the need for technical learning aids for children is very relevant.

The availability of shelters in schools is a legal requirement and a condition for the resumption of in-person education. Unlike the need for school buses and computers, the provision of shelters is a new task for local authorities and educational institutions. This process began in June-August 2022. During this period, some schools were provided with shelters through the efforts and at the expense of local authorities (no funds were allocated from the state budget).

According to the MoES, as of January 2023, 71% of schools across Ukraine have shelters, of which 13% are in their own civil protection facilities, 50% are in their own dual-purpose facilities and shelters, and 9% are in shelters in other buildings (Table 8). The total number of shelters covers 62% of all school students. The highest number of equipped shelters in their own civil protection facilities or shelters is in Ivano-Frankivsk (92%), Ternopil (91%), Lviv (78%), Chernivtsi (76%), Kirovohrad (78%), Poltava (73%) oblasts and Kyiv (91%). In Kyiv oblast, 63% of shelters have been equipped.

Instead, the situation is worse in the frontline oblasts located closer to the border with Russia or the combat zone. In Zaporizhzhia oblast, only 54% of shelters are equipped in their own buildings, 56% in Dnipropetrovsk oblast, 59% in Odesa oblast, and 61% in Sumy oblast. The worst situation with the construction of shelters in schools is in Mykolaiv (28%), Chernihiv (27%), and Kharkiv (6%) oblasts. At the same time, Chernihiv oblast has a fairly large share of shelters in other buildings – 13%, which means that some students have to go to other buildings during air raid alerts.

4.5 Education development plans and school network

Planning and strategy in the context of secondary education for the hromadas that were the focus of this study is a complex issue. Managers

⁶³ Information on needs was collected from schools to local and regional education departments.

and educators emphasise that any planning can only be short-term at this time, both because of the uncertain security situation (especially in Kharkiv oblast) and the huge number of current problems related to the destruction and the full-scale war in general that have to be addressed. Therefore, medium- and long-term development plans seem irrelevant.

The study participants also emphasised that regions and hromadas will have to abandon or significantly postpone the implementation of the education development plans they had before the full-scale war, as all resources will be used to rebuild educational infrastructure and ensure access to education in these conditions:



Before the war, we had such a gorgeous plan for the development of education, we were so proud of it! And now, well... You can just put it on the table and that's it, it's out of the question for the next, I don't know how many... a couple of decades.

Regional Department of Education, Kharkiv oblast

Planning for the restoration of educational infrastructure also touches on the issue of school network development. This problem has been acute in Ukraine for several decades: the country has too many small rural schools with poor educational environments, low quality of education, and high per-pupil expenditures⁶⁴.

The number of schools in all three oblasts decreased somewhat, but only slightly: some of the completely destroyed institutions were closed, while others suspended all activities but continue to exist as legal entities. Representatives of local authorities and RMAs testified that creating a more efficient school network (primarily transferring children from small rural schools with teacher shortages and poor educational environments to hub schools with better quality of education) was a priority before the full-scale war and remains so today. However, these issues, as well as other education development plans, are now postponed to a somewhat uncertain future due to the more urgent need to restore what has been destroyed and ensure access to education in the face of shelling and power outages.

Local authorities plan to take into account school network development plans during restoration.

⁶⁴ National Project "Decentralisation". Criteria for the formation of a capable educational network in ATH. <https://decentralization.gov.ua/uploads/library/file/461/1.pdf>.



For example, in village X, there was a school for 40 students. They really didn't want to close it, because parents didn't want to take a small child far away, even by bus if there was one... They still didn't want to. And when it is completely destroyed, to the ground, no one will actually repair it. Unfortunately, this is true. The school is for 40 children, and the repairs will cost several billion. So the issue of optimising the network will be resolved so that these children can go to school, well... let's say, guaranteeing some kind of bus so that they can go to school without any problems. And there they will go to schools in the territorial centre.

Representative of the regional education department, Kharkiv oblast

4.6 The role of international, non-governmental and charitable organisations in the restoration of educational infrastructure

Both the government of Ukraine at the national level and the hromadas that own schools recognize the important role of Ukraine's international partners and international and non-governmental organisations in post-war reconstruction in general and in the restoration of educational infrastructure in particular.

In addition to the aforementioned funds for school buses, the EU has allocated 100 million euros to restore Ukraine's educational infrastructure, divided into two components⁶⁵. The first one is 34 million euros of humanitarian aid channelled through UN agencies (UNDP and the UN Office for Project Services). These funds will be used to repair minor and moderate damage, including windows, roofs, doors, sewage and heating, as well as to provide school equipment in classrooms and bomb shelters. The second one—66 million euros—will go directly to the Ukrainian state budget. So far, the MoES and other government agencies have not released information on the expected timing of these funds and the approach to their distribution.

The activities of international and charitable organisations coordinated by the MoES⁶⁶ focus primarily on the supply of gadgets (computers for teachers and students, equipment for digital education centres),

⁶⁵ ReliefWeb (2022) EU and Ukraine sign €100 million for the rehabilitation of war-damaged schools. <https://reliefweb.int/report/ukraine/eu-and-ukraine-sign-eu100-million-rehabilitation-war-damaged-schools-enuk>.

⁶⁶ MoES (2022) International support for education and science in Ukraine under martial law. <https://mon.gov.ua/ua/news/mizhnarodna-pidtrimka-sferi-osviti-ta-nauki-ukrayini-v-umovah-voyenno-go-stanu>.

software for distance education, and the production and distribution of educational materials (including paper and digital textbooks).

The UN agencies are also involved in the supply of the above-mentioned technical learning tools for teachers: UNICEF has provided 5,000 laptops for teachers, and UNESCO, together with Google, has provided 50,000 laptops for teachers.

The international organisation Save the Children also provides technical learning aids for teachers, as well as equipment for digital education centres. In addition, this organisation, together with the World Bank, UNDP, and the Education Cluster, is assessing the losses and needs of higher education institutions.

UNICEF provided grants of the hryvnia equivalent of 3,000 USD to 1,000 hub schools to prepare them for the school year⁶⁷. These funds could be used for routine repairs, heating system repairs, purchase of generators and fuel, and purchase of technology and educational equipment. Schools in all regions of the country received these funds, regardless of damage.

The hromadas in the focus of the study also mentioned support for school restoration from the International Committee of the Red Cross, the savED charity fund with the support of the Embassy of Finland in Ukraine, Finn Church Aid, and the charity organisation Building Ukraine Together. The project was aimed at restoring damaged school buildings, including roofs and windows, and repairing classrooms.

Another area of support from international and non-governmental organisations received by the hromadas studied was psychological assistance for students and/or training for teachers on how to work with children's psycho-emotional state during the war.

Education administrations at the regional and local levels testified that they regularly interact with international and charitable organisations — for example, the Kharkiv regional education administration regularly (once every 1–2 weeks) meets with donors, and their representatives to discuss what has been done, needs and prospects. However, in Kharkiv oblast, the role of donors in the restoration of school buildings has not been active — according to one of the educational administrations, international and charitable organisations are not yet willing to invest in

⁶⁷ The Cabinet of Ministers of Ukraine (2022) Resolution of September 13, 2022, No. 1112 "On the implementation of a joint project with the United Nations International Emergency Fund for Children (UNICEF) to provide financial support to basic general secondary education institutions to prepare for the 2022/23 school year". <https://www.kmu.gov.ua/npas/pro-realizatsiiu-spilnoho-z-mizhnarod-a1112>.

the restoration of the region due to the proximity of the front line and constant shelling.

According to one of the study participants, donors and philanthropists apply to local authorities, and the latter determine what they can expect and what facilities can be offered for restoration based on what the organisation can do, what financial resources they have, and what the needs of the schools are. Then, an introductory visit to the institution takes place and the intentions to work are confirmed.

During the study, educational managers emphasised that it is local authorities that act as representatives and “guarantors” of the hromada, and donors have more trust in them. Therefore, it is not the school, but the hromada or oblast authorities that are the “entry point” for many international and charitable organisations that help with the restoration of educational infrastructure.

International and charitable organisations that offer assistance in restoring schools, according to educators and administrators, have the option to be flexible in the assistance they offer and to be based on the needs of the educational institution:



You see, the UNICEF representatives. I met with them. They always have to fill out a form about the damage to the institution. They come, they take a look, they take pictures, and we send them the pictures. Then they write it down and offer us shelters. I say: we already have a shelter, the founder has allocated funds for us, and it's already done. Then they said: "Let's see, maybe the offices are damaged, what do you think?" We agreed on the computer science classroom.

Principal, Kyiv oblast

In some cases, even if an international or charitable organisation cannot meet the needs of the hromada on its own, it provides support in finding the necessary resources by attracting funds from other donors to restore the educational infrastructure in the hromada it works with.

According to the study participants, the scale of assistance from international and charitable organisations varies, from purchasing computer equipment to financing repairs, but in their opinion, donors generally do not take on very large-scale projects such as major repairs or rebuilding an entire school.

School administrators and educators speak with gratitude about the international and charitable organisations they have contact with and perceive them as important (though not key) stakeholders in post-war recovery. At the same time, interacting with them — collecting and providing information, preparing visits, filling out applications for funds — takes time, and when a school or hromada does not receive funds or other assistance, educators feel disappointed and distrustful.

4.7 Hromadas' needs for the restoration of educational infrastructure

It is difficult to estimate from the available data, how many of the damaged and destroyed schools still need to be restored, restoration cost and the scope of the work, in part because of lack of clear damage cost evaluation and the nature of the previously mentioned restoration that was already made. Some of the affected schools are not being fully repaired, with only the most urgent and threatening damage being repaired.

Based on the example of the studied oblasts, we can assume that in the regions where the fighting and occupation ended in the spring, a significant part of the work on rapid repairs of schools that suffered less serious damage has already been done, and for the hromadas of Kyiv and Chernihiv oblasts, the priority is the major reconstruction of severely damaged or destroyed schools, more costly stages of repairing schools that are currently functioning but not in optimal condition, and the restoration of the educational environment. Instead, almost half of the schools in Kharkiv oblast need to be rebuilt.

Quantitative data on needs is collected only for gadgets and school buses, as well as the number of schools without shelters. This reflects the priorities of national and local authorities to ensure maximum access to secondary education.

The need for school buses is significant — 2,687 for the whole of Ukraine; perhaps 10% of this number is needed in Dnipropetrovsk and Kherson oblasts. Kyiv oblast needs 85 buses, Chernihiv oblast needs 63, and Kharkiv oblast needs 140.

The need for computers for teachers also remains, despite the significant amount of equipment already provided to educators — for example,

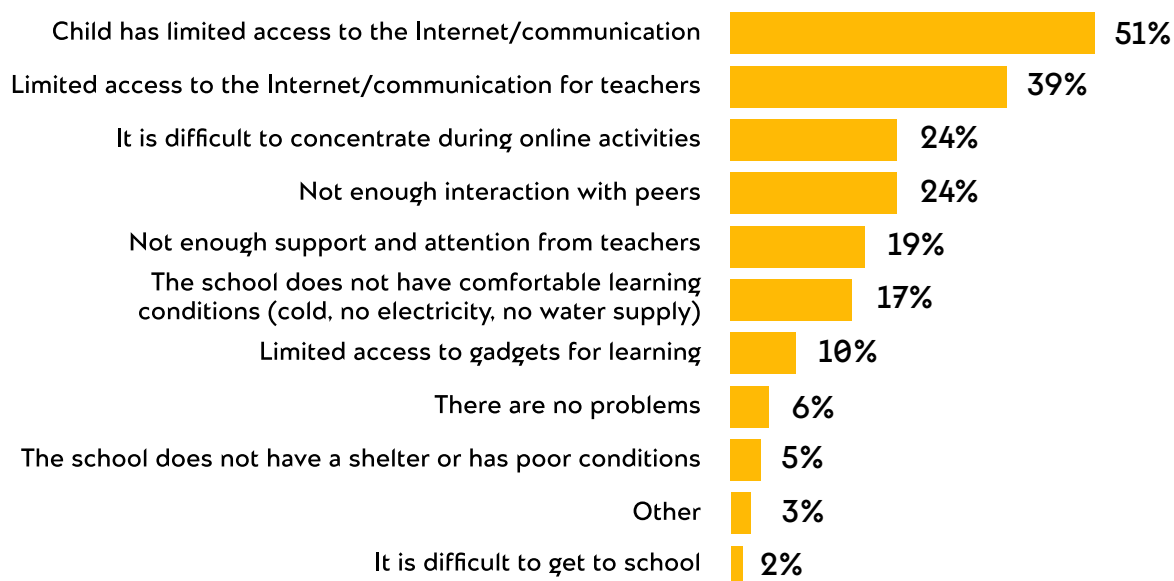
6,740 teachers in Kharkiv oblast need technical aids for their work, 219 in Kyiv oblast, and 566 in Chernihiv oblast.

Another issue is the number of gadgets needed for students' distance education. According to educators, hromadas estimate the need for gadgets only for children who do not have them at all or for children from families in need of social protection. The number of gadgets for distance education received by students is 20 times less than that received by teachers. Given that, as discussed earlier in this report, almost half of the children study using their phones, we assume that the real need for gadgets that will allow students to learn more comfortably is underestimated.

From the point of view of parents, the main need of their children in the context of secondary education is to return to in-person education. 24% of the parents surveyed said that it is difficult for their child to concentrate during online activities. 24% of children lack communication with their peers. This is especially prevalent among children studying distantly - about half of the parents in this group mentioned this problem. Children who study distantly also lack the attention and support of teachers - 27% of parents from this group mentioned this as a major problem. The need to return to in-person education is also very urgent for the teachers interviewed - they want to do so because of the higher quality of in-person education, the communication needs of students, and the excessive amount of work involved in distance and mixed education.

Creating a more comfortable educational environment is also important for parents: 42% of parents whose children study offline said that uncomfortable conditions at school (lack of heating, water, and electricity) were among the main problems. Only 7% of respondents in this group said that one of the problems was a lack of shelter or unequipped shelter.

Figure 21. "What problems does your child most often face in the current learning format?"



Note: Respondents could choose up to three answers. The answers that received more than 1% of the respondents' answers are shown, other answers include: "Hard to say", "None of the above". N=2045.

Summarising needs to restore the educational infrastructure, we can divide their needs into several streams:

- The first priority is to ensure the widest possible access to secondary education now.

For regions where in-person and mixed learning is possible, this includes the construction and repair of shelters in schools, as well as the arrangement of educational spaces in shelters, including for extracurricular activities, emergency repairs to school buildings or repair of minor damage, arrangement of modular (temporary) schools, school buses, generators and Internet access, and gadgets for learning.

For regions and hromadas where only distance learning is possible, these are generators, internet access, and gadgets for students and teachers.

- The second priority is to restore the educational infrastructure to allow for a return to in-person education.

This includes repairing schools with serious damage and converting other hromada-owned premises (administrative buildings, cultural centres, etc.) which were not damaged during the hostilities into schools.

It also includes the recreation of the educational environment (furniture, educational equipment, appliances, and facilities) in schools that have been damaged.

- The third priority is to ensure universal access to quality education, or, in the words of one of the educators, “to make it better than it was”.

This means major repairs of severely damaged, destroyed schools and schools in need of major repairs, in accordance with the current needs of hromadas for secondary education institutions and plans for the development of the school network.

It also involves creating an educational environment that meets the requirements of the school reform and state standards (construction, architecture, hygiene, etc.) in all schools.

The knowledge and skill needs voiced during the survey included such topics as interaction with international and charitable organisations, fundraising and grant management, and psychological assistance to students and themselves.

Conclusions

- The government prioritises ensuring or restoring universal access to secondary education as soon as possible, and in areas where school infrastructure has been damaged, this includes means of access to distance education—the Internet, computers, and power supplies. The government has not yet approved a plan to restore school buildings, and political leadership in this area belongs to local governments that own schools. Efforts to collect information on losses and recovery efforts are being coordinated at the oblast level.
- Information on school damage and restoration is collected vertically from the school to the government, but is not complete and consistent from one oblast to another.
- After assessing the damage, hromadas conserve school buildings to prevent weather-related damage (repairing roofs, windows, and doors) and begin repairing minor damage. Heavily damaged or destroyed schools are preserved for further major repairs.
- The approach to rebuilding schools depends on the extent of the damage and the duration of the hostilities and/or occupation.

In the oblasts where active hostilities ended in the spring - Kyiv and Chernihiv - most of the damaged schools have already been repaired. In Kharkiv oblast, however, not only the restoration but also its planning has hardly begun due to the uncertain security situation.

- Hromadas and oblasts are planning to take into account plans for the development of the capable educational network in order to restore those schools that are able to provide quality education.
- To restore access to education as soon as possible, shelters are being built and repaired in schools, school buses are being purchased, and teachers are being provided with laptops for work. These measures are funded by the state and local budgets, the EU, and international and charitable organisations.
- International and charitable organisations are already important partners of hromadas in restoring schools and ensuring access to education, undertaking some repairs, providing computers, power supplies and other resources needed by schools. International and charitable organisations are working primarily with local governments at the regional and hromada levels, offering support in rebuilding educational infrastructure within their capabilities.
- Hromadas need both funds to ensure or restore access to education (Internet, technology, including for students, funds to repair or build shelters, school buses) and funds to complete the reconstruction of schools and restore and improve the educational environment.

Recommendations

In order to guarantee the right of Ukrainian children to secondary education and to overcome the consequences of Russia's armed aggression against Ukraine in the educational area, the authors of this report recommend actions in three directions coordinated among key stakeholders – the government of Ukraine, local self-government bodies, international, charitable, and non-governmental organisations, the educators, and parents. The first direction is ensuring universal access to secondary education for Ukrainian children in the context of the full-scale war. The second is overcoming the negative impact that the full-scale war had on students and teachers. The third is restoration of the secondary education system in Ukraine, including the educational infrastructure.

1. Ensuring access to education under martial law

Due to forced displacement, destruction of schools, power outages, air-raid alerts and hostilities, some Ukrainian students are unable to attend school, and sometimes are unable to study at all. Restoring and ensuring access to secondary education here and now, despite the ongoing full-scale war, should be a top priority.

It requires constant study of the needs, problems and challenges in the regions and for groups of children who have been deprived of access to secondary education by Russian aggression, as well as the search for flexible formats for its provision. The tasks are to minimise the number of students who study only remotely and only in asynchronous mode, to ensure that all children and teachers have access to school and/or to technical means for distance learning.

1. Continuous monitoring of the access to secondary education within hromadas, with an assessment of the proportion of children studying remotely and opportunities for synchronous distance learning.

Ensuring access to secondary education is the responsibility of local authorities, but in the context of a full-scale war, hromadas need support in fulfilling this task. It is important to evaluate the access to secondary education at the national level, to prevent even more significant learning gaps and to take into account the needs of vulnerable groups. Establishing a system for collecting information on access to secondary education and needs of schools will allow for better coordination of government policy and donor assistance and provide support where it is most needed.

2. Creating opportunities for mixed mode of learning in hromadas, where schools have been destroyed: educational centres, modular schools, temporary classrooms in public buildings that survived shelling.

Ensuring access to education, in particular in hromadas that have been in the area of active hostilities and/or under temporary occupation, is not the same as rebuilding schools. Given the extent of the destruction of educational infrastructure, it is impossible to quickly and/or simultaneously rebuild hundreds of schools. At the same time, hromadas where housing and critical infrastructure have been preserved and active hostilities are no longer taking place, have seen a significant number of residents return, including school-age children, who are fully or partially deprived of access to education. An interim solution for these hromadas is creating Temporary Learning Spaces that can be used by students if their schools are completely or partially destroyed. Such spaces can be: a) modular temporary schools; b) other surviving premises converted into educational institutions (cultural centres, administrative buildings, private property leased by the hromada, etc.); c) learning spaces that are currently being actively deployed in different regions. This is the first educational aid.

3. Provide students with educational materials (including paper textbooks) and gadgets suitable for distance learning, especially in regions where all or most children study remotely for security reasons⁶⁸.

Distance learning is not optimal for either students or teachers, but because of safety concerns, it is a necessary step for many of them that cannot be avoided. However, it is necessary to create better conditions for distance learning in hromadas where children cannot study in classrooms or using the mixed mode of learning. In particular, it is necessary to provide children with gadgets that are better suited for learning than cell phones and to provide them with paper textbooks. Teachers, in addition to gadgets and the Internet, need methodological support for distance learning.

⁶⁸ Digital Learning Centers. Access to education for children living in the war affected regions. <https://www.google.com/url?q=https://drive.google.com/file/d/1AJ7ONfifQLrRh7bs6odP3jKmtaWU-YmbD/view?usp%3Dsharing&sa=D&source=docs&ust=1676902423343056&usg=AOvYaw3a4hmB-mEu64MHQcXy2eZtc>.

4. Constructing and equipping of school shelters.

For a large number of hromadas along the border with Belarus and Russia, including hromadas in Kyiv and Chernihiv oblasts, the only way to study together in classrooms is to study in shelters. After all, it is not known how long the constant threat of artillery and rocket attacks will persist. The equipped shelters should be full-fledged, safe and comfortable spaces, with communication and network access, equipped with all the necessary teaching tools. Such underground learning spaces will not allow all children of a particular school to study at the same time, but they can provide at least several hours of lessons in shifts. In addition, even after the end of large-scale hostilities, Ukraine will live with the constant threat of air raids, missile attacks and UAVs⁶⁹. Therefore, equipped shelters, following the example of Israel, will, unfortunately, be a commonplace and mandatory element of life and education.

5. Meeting the need for school buses and expanding their routes, providing transportation for teachers.

School buses were an important component of providing access to quality secondary education for children from villages before the full-scale invasion. Now their role is becoming even more important: they can provide transportation not only to hub schools, but also to schools with shelters, from localities where the school was destroyed to those where it survived, etc. Hromadas need not only to restore their vehicle fleet but also to expand it.

It is also necessary to provide transportation for teachers so that they can teach children (first of all primary school students) face-to-face at least several times a week in localities, where schools are not open or where there are no schools — even in regions where education is completely in remote mode.

2. Overcoming the consequences of war for students and teachers (learning losses, overload, psycho-emotional state)

The difficulties and challenges of a full-scale war have greatly affected all participants in the educational process. The psycho-emotional state of students and teachers, as well as academic progress and working conditions, have been negatively affected by Russia's armed aggression. It is necessary to study the scale and strength of this impact and take measures to compensate for it.

⁶⁹ Unmanned aerial vehicle

1. Measure learning losses, especially for children from vulnerable groups.

A year of full-scale war, preceded by two years of the COVID-19 pandemic, could not but affect the educational performance of Ukrainian students. However, no systematic assessment of learning losses has been conducted so far. It is necessary to conduct nationwide research of these losses on each of key subjects and at each level of secondary education, and to provide teachers with effective tools for diagnosing such losses.

2. To study the impact of full-scale war on vulnerable groups of students.

Without exception, all children in Ukraine have become victims of Russian aggression. However, there are categories of students who are much more vulnerable:

- Students studying in rural areas. Even before the full-scale war, they had much worse access to quality education than their peers in urban schools⁷⁰. In addition, most of the liberated settlements (in the regions analysed in this report) are villages or small towns, where residents have minimal financial capacity to restore on their own stolen educational materials or hire tutors for their children.
- Students with special educational needs. Since 2017, Ukraine has been implementing a national policy to integrate children with SEN into the educational process in regular schools, creating inclusive classes with appropriate material and technical support and with the help of teacher assistants. War, destruction, shelling, and the inability to study offline caused even more limited access to education compared with other Ukrainian students and lack of qualified developmental assistance.
- Students from families with war-related deaths, including those whose parents were killed during the war.

This vulnerability of certain categories should be taken into account when researching learning losses, designing and providing assistance in restoring access to education.

⁷⁰ Ukrainian Center for Educational Quality Assessment (2018) National report on the results of an international study of the quality of education PISA-2018. http://pisa.testportal.gov.ua/wp-content/uploads/2019/12/PISA_2018_Report_UKR.pdf, c. 80-86.

3. Launch a national program on learning loss recovery.

Measures on recovery of learning losses caused by full-scale war should be planned and coordinated at the national level to provide sufficient resources both financial and technical, as well as methodological, but be flexible enough to take into account the specific characteristics of children from different groups and the situation in separate schools. Effective measures could include creating a network of tutors and funding small group tutoring from the education subvention.

In addition, it is important to distinguish the age group of primary school students (6/7-10/11 years old). As a result of three years of lack of stable classroom learning due to the pandemic and full-scale war, a generation of children is being formed in Ukraine, part of whom have hardly attended preschool and primary school. This age period is fundamental for the formation of a number of basic skills, abilities, attitudes, and values. Lack of access to preschool significantly and gradually reduces the level of success in school in the future⁷¹. Distance learning significantly limits opportunities. Therefore, when working on learning loss recovery, it is necessary to prioritise primary school students.

An essential component of measures on learning loss recovery should be communication work with parents about the fact that there are losses and how they can join the work on their compensation.

4. Ensure sustainable operation of the system of psycho-emotional support for participants in the educational process.

The full-scale war and the resulting social isolation have had a negative impact on the psycho-emotional state of students and teachers, as well as parents, and these problems are systemic and therefore require systemic solutions. It is necessary to create a program of psychological support for participants in the educational process, including both the efforts of professional psychologists and intensive training for teachers on how to assess the psycho-emotional state of a child as well as their own, how to act in case of signs of traumatic disorder, how to cope with the loss of loved ones, etc. This program could include, among other things, the wider use of edutainment for psychological and emotional support.

⁷¹ Ukrainian Center for Educational Quality Assessment (2019) State of Formation of Reading and Mathematical Competencies of Primary School Graduates of General Secondary Education Institutions, 2018. https://testportal.gov.ua//wp-content/uploads/2019/11/Buklet_MDYAPO.pdf.

3. Restoring the secondary education system, including infrastructure

Secondary education in Ukraine, students and teachers have suffered very heavy, sometimes irreparable losses due to the war unleashed by Russia. Restoring what has been destroyed will require enormous resources – financial, human, and organisational. It is important to manage these resources in a way that will not only allow us to return to the status quo before the full-scale war, but to use them as a boost for development. Recovery in secondary education should be based on the following approaches:

- “Building back better”.

This applies to both school buildings and the educational environment, as well as to issues of accessibility and quality of education: rebuilding schools that will be part of a capable school network, continuing the NUS reform.

- Consistency of the restoring process and relevance of assistance.

Different types of assistance to restore access to education should be timely and relevant. In the areas that have been de-occupied and/or where there has been no hostilities for a long time, it is inappropriate to limit oneself to basic humanitarian needs. It is worth considering a certain sequence and priority of actions in restoring access to educational infrastructure in accordance with the indicative timeline, which was also discussed above in this study.

- Individual approach to every school.

Depending on a number of factors – the duration of the occupation, the intensity of hostilities, the extent of destruction, access to hromadas at a certain period of time (in terms of demining, restoration of communications, etc.) – different regions, as well as different hromadas within the same region, vary significantly in terms of the extent of the impact that affected access to education. Therefore, different hromadas often have different needs in restoring access to education. In addition, even if hromadas are de-occupied or there are no longer hostilities on their territory, their location may allow only a certain mode of the educational process due to security challenges – distance learning only, as is the case, for example, in hromadas within the 40-kilometre zone along the border. This whole complex of aspects does not allow for the use of universal tools to restore access to educational activities. The so-called “one size fits all” policy of educational restoration does not work.

Therefore, when shaping the directions and modalities of assistance, the narrow local context of particular regions and hromadas in them should be taken into account, based on a comprehensive assessment of local needs.

1. Create a system for collecting information on the destruction of educational institutions.

Currently, there is no register of damaged and destroyed schools and no information on the extent of damage, so it is difficult to estimate the extent of losses and the cost of reconstruction at the national level. It is advisable to implement a government decree on [monitoring the damage and destruction by regions of Ukraine caused by the armed aggression of the Russian Federation based on a geoinformation system](#), as well as to carry out assessment of losses in the educational environment, for example, by counting destroyed classrooms.

Also, when developing a step-by-step plan for the restoration of educational infrastructure in a hromada or region, it is important to take into account that any physical restoration should be preceded by damage assessment, preparation of expert reports on visual and technical inspection of facilities, serviceability of the educational institution, and final conclusions on the estimate of the restoration/repair budget, previously prepared by engineers and appraisers⁷². A comprehensive assessment of damage within the region and/or hromada provides a holistic view of the scale of resources needed for restoration and also allows to generate a certain sequence of restoration works.

2. Update plans for the development of the capable school networks.

Given the overly branched school network, which has been slowly reorganised over the past 5-7 years to meet the needs and capacities of hromadas, restoring secondary education should include a reassessment of needs in view of population displacement and plans for the reconstruction of settlements. This should be done both in hromadas that have been in the area of hostilities and/or occupation but have not suffered very significant destruction (the restoration of hromadas where destruction has made settlements uninhabitable should be the subject of separate consideration) and for hromadas

⁷² savED (2022). Education and War: Impact of the russian full-scale invasion on the school education sector of Chernihiv city. Overview Report. https://drive.google.com/file/d/1Ai38NABOBeRmWINnmF8_CLX-5Nm7bomyX/view.

that have not been affected by hostilities. Plans for the development of the school network should take into account the displacement of students due to the hostilities and the NUS reform, in particular the need to create a network of high schools (lyceums) capable of providing specialised secondary education.

3. Strengthen the ability to plan and implement restoration and further implementation of education policy at the regional and local levels.

There are 3 levels of education system management in Ukraine:

- 1) Ministry level – responsible for policy-making, development and approval of state standards (curricula) and provision of educational materials;

- 2) regional (oblast) level – responsible for coordination of the implementation of national policy, collection of various statistical information, and establishment of special schools (boarding schools);

- 3) local level – responsible for provision of all children with secondary education, creation and maintenance of educational infrastructure, organisation of meals for students, organisation of transportation to educational institutions, etc.

Each of these levels require certain measures: training for staff to develop and implement education policy, technical solutions for more effective data-driven management, support for research that policy has to base on, etc. Since it is the third level, the hromada level, that will be directly responsible for restoring educational infrastructure, even if resources for this come from different sources, the ability of local authorities to plan effectively for such restoration is very important.

Local education authorities from hromadas that have been severely damaged need special support. They need the most basic assistance – access to the Internet, equipment for office work, supplies, etc.

4. Ensure the educational environment in all schools is in compliance with the standards and recommendations of the Ministry of Education and Science.

The reconstruction of destroyed and damaged schools should include not only the repair or construction of new buildings, but also the creation or recreation of an educational environment that is safe, comfortable, inclusive and stimulating to learning and will allow

the fullest possible implementation of the standards of complete general secondary education. According to the law, the maintenance of school buildings and the creation of an educational environment is the responsibility of school owners, mainly local authorities. Even before the full-scale war, there were no resources to ensure that the educational environment in each school met the needs and standards. When the recession caused by the full-scale war and the need to rebuild what has been destroyed are added to the mix, the need to support local authorities in creating an educational environment becomes even more urgent.

A clear plan is needed to build a proper educational environment in each school, and that will include an assessment of needs in accordance with plans of school network development, sources of financing and timelines for implementation.

5. Continue the reform of the New Ukrainian School.

Systemic reform of secondary education is the key to improving its quality and accessibility. A new stage of the reform, basic secondary education, started in the 2022/2023 school year, and the next stage, high school reform, is due to begin in 2027. The COVID-19 pandemic and the full-scale war have significantly slowed the momentum of the reform, the amount of resources spent on it has decreased, and the conditions in which it is being implemented have changed. The NUS implementation plan needs to be revised and updated. It is also necessary to implement the steps that have not been properly implemented over the past 2 years, in particular retraining of basic (lower secondary) school teachers, preparation and printing of educational materials, establishing of a digital education management information system, modernization of the teacher remuneration system, simplification of document flow, updating the system of monitoring and independent assessment of learning achievements, and development of an appropriate educational environment.

Appendix 1. Characteristics of schools that were in the focus of the study

Table 3: Characteristics of the schools that were the focus of the study

Oblast	Type of hromada	School number	Scale of destruction	The school was under occupation/ combat zone	Mode of education
Kyiv	Rural hromada	School No. 1	Completely destroyed	The settlement was under occupation for three weeks	Змішана
	Rural hromada	School No. 2	The school building is partially destroyed	The settlement was under occupation for a week	In-person
	Rural hromada	School No. 3	The school building is partially destroyed	The settlement was in the area of active hostilities	Distance
	Rural hromada	School No. 4	The school building was damaged, including the roof and windows	The settlement was in the area of active hostilities	Mixed
Chernihiv	Urban hromada	School No. 5	Only windows were damaged	The settlement was in the area of active hostilities for more than a month	Mixed
	Urban hromada	School No. 6	The school building was damaged by shelling	The settlement was in the area of active hostilities for more than a month	Distance
	Rural hromada	School No. 7	The school building is partially destroyed	The settlement was under occupation	Distance
	Rural hromada	School No. 8	The school building was not damaged, property was stolen or destroyed	The settlement was under occupation	Distance

Oblast	Type of hromada	School number	Scale of destruction	The school was under occupation/ combat zone	Mode of education
Kharkiv	Urban hromada	School No. 9	The school building was completely destroyed, only the facade survived	The settlement was under occupation until September	Distance
	Urban hromada	School No. 10	The school building was partially damaged, with windows smashed and the roof damaged	The settlement was in the area of active hostilities	Distance
	Rural hromada	School No. 11	The school building was not damaged	The settlement was not affected and was not under occupation	Distance
	Rural hromada	School No. 12	The school building was not damaged	The settlement was not affected and was not under occupation	Distance

Appendix 2. Secondary data in descriptive tables⁷³

Table 4. The number of students who continued to stay abroad as of the beginning of the 2022/2023 school year and as of December 2022

Oblast	Number of secondary school students	Students of secondary educational institutions who continued to stay abroad as of the beginning of 2022/2023 school year		Students of secondary educational institutions who continued to stay abroad, persons as of December 2022	
		Number	Share	Number	Share
Vynnytsia	167546	13001	8%	11244	7%
Volyn	144644	12779	9%	8545	6%
Dnipropetrovsk	339784	43460	13%	49787	15%
Donetsk	105396	29813	28%	27679	26%
Zhytomyr	137549	17807	13%	12621	9%
Zakarpattia	168179	11219	7%	9720	6%
Zaporizhzhia	156188	29042	19%	34093	22%
Ivano-Frankivsk	161006	12615	8%	12076	8%
Kyiv (oblast)	241336	19523	8%	24909	10%
Kirovohrad	96936	7326	8%	7158	7%
Luhansk	27050	5083	19%	6794	25%
Lviv	291863	11627	4%	14135	5%
Mykolaiv	113998	22124	19%	23776	21%
Odesa	275393	39480	14%	40591	15%
Poltava	140328	12691	9%	11174	8%
Rivne	168236	11812	7%	9604	6%
Symu	95966	13527	14%	11864	12%

⁷³ According to the MoES data received in response to a request for access to public information.

Oblast	Number of secondary school students	Students of secondary educational institutions who continued to stay abroad as of the beginning of 2022/2023 school year		Students of secondary educational institutions who continued to stay abroad, persons as of December 2022	
		Number	Share	Number	Share
Ternopil	110030	12867	12%	12782	12%
Kharkiv	233739	60164	26%	65447	28%
Kherson	66253	12721	19%	23707	36%
Khmelnytskyi	140297	9847	7%	7135	5%
Cherkasy	118017	9497	8%	9791	8%
Chernivtsi	108636	8607	8%	8948	8%
Chernihiv	94090	4199	4%	8911	9%
Kyiv (city)	338393	61246	18%	63752	19%
Total	4040853	492077	12%	516243	13%

Table 5. The number of teachers who continued to work abroad as of December 2022

Oblast	Number of teaching staff	Teachers of secondary educational institutions who were abroad as of December 2022	
		Number	Share
Vinnitsia	18758	115	1%
Volyn	17485	126	1%
Dnipropetrovsk	27312	792	3%
Donetsk	8734	991	11%
Zhytomyr	15689	344	2%
Zakarpattia	18481	167	1%
Zaporizhzhia	13848	1519	11%
Ivano-Frankivsk	20243	385	2%
Kyiv (oblast)	20982	325	2%
Kirovohrad	10253	100	1%
Luhansk	2412	334	14%
Lviv	33470	243	1%
Mykolaiv	10677	687	6%
Odesa	23518	714	3%
Poltava	14630	161	1%
Rivne	18890	148	1%
Symu	10007	197	2%
Ternopil	14807	102	1%
Kharkiv	19460	1932	10%

Oblast	Number of teaching staff	Teachers of secondary educational institutions who were abroad as of December 2022	
		Number	Share
Kherson	6120	1531	25%
Khmelnyskyi	15585	39	0%
Cherkasy	12809	118	1%
Chernivtsi	11820	142	1%
Chernihiv	10732	183	2%
Kyiv (city)	25098	533	2%
Total	401820	11928	3%

Table 6. The number of IDPs among school students as of the beginning of 2022/2023 school year and as of December 2022

Oblast	IDPs among students as of the beginning of 2022/2023 school year		IDPs among school students as of December 2022	
	Number	Share	Number	Share
Vinnytsia	4525	3%	5182	3%
Volyn	1511	1%	2156	1%
Dnipropetrovsk	11561	3%	11510	3%
Donetsk	5960	6%	41061	39%
Zhytomyr	1686	1%	1794	1%
Zakarpattia	2530	2%	4292	3%
Zaporizhzhia	5200	3%	10346	7%
Ivano-Frankivsk	3210	2%	4373	3%
Kyiv (oblast)	4555	2%	7216	3%
Kirovohrad	4065	4%	6356	7%
Luhansk	13631	50%	9942	37%
Lviv	3857	1%	6862	2%
Mykolaiv	1631	1%	3166	3%
Odesa	4085	1%	6047	2%
Poltava	5587	4%	5474	4%
Rivne	1474	1%	2265	1%
Symu	513	1%	1426	1%
Ternopil	1548	1%	2053	2%
Kharkiv	1969	1%	6284	3%

Oblast	IDPs among students as of the beginning of 2022/2023 school year		IDPs among school students as of December 2022	
	Number	Share	Number	Share
Kherson	0	0%	0	0%
Khmelnyskyi	2453	2%	4569	3%
Cherkasy	2729	2%	3989	3%
Chernivtsi	2636	2%	3104	3%
Chernihiv	1004	1%	1662	2%
Kyiv (city)	3566	1%	11827	3%
Total	91486	2%	162956	4%

Table 7. The number of lost school buses and the need for school buses as of January 1, 2023

Oblast	The number of school buses involved in the evacuation	The number of school buses donated to the AFU	Number of school buses destroyed as a result of hostilities that cannot be restored	The number of school buses stolen to the territory of the RF	The number of school buses remaining on the temporarily occupied territory	The need for school buses
Vinnytsia	0	60	0	0	0	135
Volyn	2	63	0	0	0	72
Dnipropetrovsk	50	58	0	0	0	258
Donetsk	23	28	5	0	41	33
Zhytomyr	0	95	4	0	0	120
Zakarpattia	0	75	23	0	0	139
Zaporizhzhia	4	9	0	0	0	16
Ivano-Frankivsk	0	47	4	0	0	128
Kyiv (oblast)	0	50	12	0	0	85
Kirovohrad	0	27	0	0	0	56
Luhansk	0	6	0	0	146	200
Lviv	0	89	0	0	0	115
Mykolaiv	2	66	15	7	2	103
Odesa	0	40	0	0	0	103
Poltava	0	31	1	0	0	113
Rivne	0	54	0	0	0	87
Symu	0	37	2	1	0	66
Ternopil	2	38	0	0	0	84

Oblast	The number of school buses involved in the evacuation	The number of school buses donated to the AFU	Number of school buses destroyed as a result of hostilities that cannot be restored	The number of school buses stolen to the territory of the RF	The number of school buses remaining on the temporarily occupied territory	The need for school buses
Kharkiv	29	33	14	37	14	140
Kherson	0	1	64	0	152	224
Khmelnytskyi	0	66	0	0	0	133
Cherkasy	0	54	0	0	0	77
Chernivtsi	0	98	0	0	0	114
Chernihiv	0	18	5	0	0	63
Kyiv (city)	0	0	1	0	0	1
Total	112	1143	150	45	355	2687

Table 8. The state of shelters in schools as of 12.01.2023⁷⁴

Oblast	Shelters were organised in schools' own civil defence facilities		Shelters have been organised in the schools' own dual-purpose buildings and the simplest shelters based on the results of the commission's inspections		Shelters were organised in civil defence facilities, dual-purpose buildings and the simplest shelters in other premises		Total number of shelters	Total number of people in them
	Share of shelters	Number of people they are designed for	Number of shelters	Number of people they are designed for	Number of shelters	Number of people they are designed for		
Vinnitsia	11%	9%	60%	51%	8%	3%	79%	63%
Volyn	7%	11%	40%	53%	12%	9%	60%	74%
Dnipropetrovsk	15%	10%	41%	33%	0,50%	0,18%	56%	43%
Zhytomyr	26%	48%	41%	37%	13%	9%	80%	94%
Zakarpattia	7%	7%	66%	69%	35%	23%	107%	100%
Zaporizhzhia	0	1%	54%	45%	0	0	54%	46%
Ivano-Frankivsk	17%	19%	75%	52%	5%	6%	97%	77%
Kyiv (oblast)	9%	13%	54%	49%	6%	6%	69%	68%
Kirovohrad	17%	18%	61%	75%	6%	3%	83%	96%
Lviv	9%	13%	69%	78%	14%	7%	92%	99%
Mykolaiv	9%	8%	19%	15%	1%	0	29%	24%
Odesa	8%	7%	51%	35%	12%	6%	70%	48%
Poltava	25%	14%	48%	33%	2%	1%	74%	47%
Rivne	24%	29%	32%	34%	6%	4%	62%	67%
Symu	8%	10%	53%	31%	10%	5%	72%	46%
Ternopil	15%	21%	76%	61%	6%	3%	97%	85%
Kharkiv	6%	8%	0	0	0	0	6%	9%
Khmelnyskyi	18%	12%	52%	46%	14%	7%	84%	66%

⁷⁴ The table does not include data for Donetsk, Luhansk and Kherson oblasts due to lack of data

Oblast	Shelters were organised in schools' own civil defence facilities		Shelters have been organised in the schools' own dual-purpose buildings and the simplest shelters based on the results of the commission's inspections		Shelters were organised in civil defence facilities, dual-purpose buildings and the simplest shelters in other premises		Total number of shelters	Total number of people in them
	Share of shelters	Number of people they are designed for	Number of shelters	Number of people they are designed for	Number of shelters	Number of people they are designed for		
Cherkasy	5%	6%	55%	46%	12%	10%	72%	61%
Chernivtsi	29%	42%	47%	42%	31%	13%	98%	97%
Chernihiv	14%	28%	36%	41%	13%	5%	64%	74%
Kyiv (city)	1%	0	90%	72%	3%	2%	94%	74%
Total	12%	13%	50%	44%	9%	5%	71%	62%

Appendix 3. Survey data in descriptive tables

Table 9: "In what mode of education did your child study this school year, i.e. from September 1, 2022?"

Answer options	Number	Share
Mostly distance learning	937	46%
Mostly classroom learning	533	26%
Mostly mixed mode of learning	560	27%
Other	0	0.0%
Hard to say	7	0.0%
Refusal to answer	1	0.0%
Family (home) mode of learning	7	0.4%

Table 10. "In what mode of education did your child study in this school year, i.e. from September 1, 2022?", by grade

	Distance	In-person	Mixed	Hard to say	Refusal	Family	Number
Grades 1-4	41%	33%	25%	0,2%	0,1%	1%	773
Grades 5-9	47%	24%	28%	0,4%	0,0%	0,0%	736
Grades 10-11	51%	19%	29%	0,6%	0,0%	0,2%	536

Table 11: "If your child is studying or has studied in distance learning in most subjects, how is it happening/has happened?"

Answer options	Number	Share
Attends online lessons (via ZOOM, Google Meets)	1165	87%
Watches lessons on platforms (All-Ukrainian School Online, online courses, etc.)	151	11%
Receives homework assignments for independent work (e.g., textbook chapters, homework exercises) from the teacher	575	43%
Works independently with textbooks and other learning materials	323	24%
Processes materials sent by the teacher or posted online (e.g., in Google Classroom)	504	3%
Has classes with a tutor	95	7%
Other	17	1%
Hard to say	2	0.1%
Refusal to answer	0	0.0%

Table 12: "Does your household have any gadgets (e.g., phone, tablet, computer) that your child uses for learning?"

Answer options	Number	Share
Yes, the child has at least one gadget of his or her own that he or she uses for learning	1838	90%
Yes, the child uses the gadget, but shares it with other family members	183	9%
No, there is no gadget in our household that a child can use for learning	19	0.9%
Other	1	0.0%
Refusal to answer	4	0.2%

Table 13. “Does your household have any *gadgets* (e.g., phone, tablet, computer) that your child uses for learning?”, by grade

	Has at least one gadget of their own	Shares the gadget with others	Does not have a gadget	Other	Refusal	Number
Grades 1-4	83%	16%	2%	0,1%	0,2%	773
Grades 5–9	93%	7%	0,3%	0,0%	0,1%	736
Grades 10–11	96%	3%	0,7%	0,0%	0,3%	536

Table 14. “Does your household have any *gadgets* (e.g., phone, tablet, computer) that your child uses for learning?”, by IDP identification

	Has at least one gadget of their own	Shares the gadget with others	Does not have a gadget	Other	Refusal	Number
Do not identify themselves as IDPs	91%	8%	0,7%	0,0%	0,2%	1710
Identify themselves as IDPs	83%	16%	2%	0,0%	0,0%	335

Table 15: “Does your household have any gadgets (e.g., phone, tablet, computer) that your child uses for learning?”, by self-assessed well-being

	Has at least one gadget of their own	Shares the gadget with others	Does not have a gadget	Other	Refusal	Number
Not enough money for food	74%	22%	4%	0,0%	0,0%	29
Have enough money for food, but can't always buy clothes	87%	12%	0,7%	0,0%	0,4%	411
Have enough money for food and clothes, but can't always buy household appliances	91%	8%	1%	0,1%	0,1%	1163
Have enough money for household appliances, but can't buy a car or apartment	90%	8%	1%	0,0%	0,3%	314
Can buy a car and other things of similar value	91%	9%	0,0%	0,0%	0,0%	42
Refusal	96%	3%	0,7%	0,0%	0,0%	84

Table 16. "What gadget does a child use most often for studying?", by self-assessment of well-being

	Tablet	Laptop	Desktop computer	Phone	No answer	Other	Refusal	Number
Not enough money for food	6%	15%	7%	72%	0,0%	0,0%	0,0%	28
Have enough money for food, but can't always buy clothes	19%	20%	8%	53%	0,0%	0,2%	0,0%	407
Have enough money for food and clothes, but can't always buy household appliances	19%	30%	8%	43%	0,1%	0,0%	0,0%	1150
Have enough money for household appliances, but can't buy a car or apartment	13%	24%	13%	50%	0,0%	0,0%	0,4%	310
Can buy a car and other things of similar value	35%	18%	6%	40%	0,0%	0,0%	0,0%	42
Refusal	13%	35%	11%	41%	0,0%	0,0%	0,0%	84

Table 17: “How often were you involved in your child’s education?”

	Before the full-scale invasion, number	Before the full-scale invasion, share	After the full-scale invasion, number	After the full-scale invasion, share
Daily	698	34%	811	40%
Once or twice a week	472	23%	447	22%
3-4 times a week	341	17%	356	17%
Once or twice a month	105	5%	106	5%
3-4 times a month	73	4%	86	4%
Less than once a month	65	3%	76	4%
Have not been involved	121	6%	111	5%
My child started school during the full-scale invasion	119	6%	–	–
Hard to say	52	3%	51	3%

Table 18. "How involved are you in your child's education?", by grade. Respondents could choose several answers.

Answer options	Grades 1–4	Grades 5–9	Grades 10–11
I help my child during online lessons (connecting to the lesson, staying close while the lesson is going on), I do it regularly	68%	23%	9%
I help my child during online lessons (connecting to the lesson, staying close while the lesson is going on), I do it occasionally	67%	31%	3%
I am interested in what has been learned, successes and difficulties in studying, I do it regularly	43%	41%	16%
I am interested in what has been learned, successes and difficulties in studying, I do it occasionally	29%	43%	28%
I check homework and do it regularly	55%	37%	9%
I check homework and do it occasionally	33%	44%	21%
I help with homework and do it regularly	68%	27%	5%
I help with homework and do it occasionally	34%	46%	20%
I communicate with the child's teachers, I do it regularly	39%	41%	20%
I communicate with the child's teachers, I do it occasionally	21%	38%	41%
The child is independent in their studies, I intervene only when the child asks me to	11%	34%	55%

Table 19: “How much time does your child spend studying every day in total, in addition to attending school/attending online classes?”

Answer options	Number	Share
Less than 1 hour	164	8%
1–2 hours	810	40%
3–4 hours	755	37%
5–6 hours	224	11%
More than 6 hours	34	2%
Hard to say	59	3%
Refusal to answer	1	0,0%

Table 20. “How much time does your child spend studying every day in total, apart from attending school/ attending online lessons?”, by mode of education

	Less than 1 hour	1–2 hours	3–4 hours	5–6 hours	More than 6 hours	Hard to say	Refusal	Number
Distance learning	6%	34%	41%	14%	3%	2%	0,1%	937
In-person learning	12%	50%	30%	5%	0,4%	3%	0,0%	533
Mixed mode of learning	8%	39%	38%	11%	0,4%	4%	0,0%	560
Hard to say	0,0%	37%	6%	15%	0,0%	42%	0,0%	7
Refusal	0,0%	100%	0,0%	0,0%	0,0%	0,0%	0,0%	1
Family	0,0%	32%	6%	62%	0,0%	0,0%	0,0%	7

Table 21: “Please estimate how many school days your child has not studied at all since the beginning of the full-scale invasion (did not attend school physically or distantly, did not interact with teachers)?”

Answer options	Number	Share
Less than 14 days	818	40%
14–30 days	585	29%
30–60 days	178	9%
60–90 days	49	2%
90–120 days	32	2%
120–150 days	5	0,2%
150–180 days	0	0,0%
More than 180 days	3	0,1%
My child has studied all the time	152	8%
Other	5	0,3%
Hard to say	213	10%
Refusal to answer	5	0,3%

Table 22: “Please estimate how many school days your child has not studied at all since the beginning of the full-scale invasion (did not attend school physically or distantly, did not interact with teachers)”, by macro-region⁷⁵

	Less than 14 days	14–30 days	30–60 days	60–90 days	90–120 days	120–150 days	More than 180 days	My child has studied all the time	Other	Hard to say	Refusal	Number
West	43%	33%	6%	0,6%	0,3%	0,0%	0,0%	8%	0,2%	9%	0,3%	742
Kyiv and oblast	33%	40%	14%	5%	2%	0,0%	0,9%	4%	0,8%	1%	0,0%	311
South	43%	15%	2%	1%	0,4%	0,0%	0,0%	10%	0,2%	28%	0,0%	193
North	29%	23%	16%	5%	2%	0,3%	0,0%	22%	0,0%	2%	0,0%	170
East	35%	24%	11%	5%	6%	0,5%	0,0%	2%	0,0%	16%	0,4%	351
Centre	51%	24%	7%	0,2%	0,2%	0,8%	0,0%	6%	0,5%	11%	0,5%	278

Table 23: “For what reasons has your child missed school most often since the beginning of the full-scale invasion?” Respondents could choose up to five answers

Answer options	Number	Share
Due to the power outages	1188	58%
Due to lack of or poor internet connection	1020	50%
Due to air raid alerts	1228	60%
Due to illness	801	39%
Due to family circumstances	241	12%
Due to the complete suspension of the educational process at school due to hostilities and/or occupation of the settlement	223	11%
Due to the absence or lack of equipment and a workplace for studying at home	18	0,9%

⁷⁵ Macro-regions: West — Volyn oblast, Zakarpattia oblast, Rivne oblast, Ivano-Frankivsk oblast, Lviv oblast, Ternopil oblast, Khmelnytskyi oblast, Chernivtsi oblast; Centre - Vinnytsia oblast, Kirovohrad oblast, Poltava oblast, Cherkasy oblast; North — Zhytomyr oblast, Sumy oblast, Chernihiv oblast; East — Dnipropetrovsk oblast, Donetsk oblast, Kharkiv oblast, Luhansk oblast, Zaporizhzhia oblast; South — Mykolaiv oblast, Odesa oblast, Kherson oblast; Kyiv and oblast.

Answer options	Number	Share
Due to a lack of motivation for learning	53	3%
Due to forced vacations	285	14%
The school did not organise distance learning	30	2%
Other (write)	13	0,7%
Hard to say	40	2%
[Do not read] Refusal to answer	7	0,4%
Did not miss	25	1%

Table 24. "Do you agree or disagree with the following statement: "The learning gaps in knowledge and skills that children have as a result of the pandemic and full-scale invasion will have an impact on their education and future?"

Answer options	Number	Share
Strongly agree	1153	56%
Rather agree	578	28%
Rather disagree	148	7%
Strongly disagree	48	2%
Hard to say	118	6%

Table 25: "In your opinion, do you think additional measures are needed to compensate for the learning gaps in knowledge and skills that children have as a result of the pandemic and full-scale invasion?"

Answer options	Number	Share
Yes	1470	72%
No	372	18%
Hard to say	203	10%

Table 26: "During the previous month, how often did you observe the following conditions in your child?"

	Never	Once or twice	Sometimes	Often	Always
Joy	0,3%	2%	24%	61%	14%
Being active	0,6%	2%	16%	53%	28%
Personal pride	2%	11%	44%	38%	7%
Confidence	2%	6%	33%	45%	15%
Apathy	42%	27%	26%	5%	0,4%
Anxiety	16%	29%	42%	13%	0,7%
Sadness	21%	35%	37%	7%	0,9%
Anger	31%	32%	31%	6%	0,4%
Loneliness	48%	25%	25%	5%	0,6%

Table 27: "Please read the following statements and indicate how much you agree with them: "My child and I have been able to adapt to the new challenges in learning due to the war"

Answer options	Number	Share
Strongly disagree	99	5%
Rather disagree	274	13%
Hard to say	244	12%
Rather agree	1030	50%
Strongly agree	399	20%

Table 28: "Please read the following statements and indicate how much you agree with them: "I believe that my child successfully acquires new knowledge in the current format of education"

Answer options	Number	Share
Strongly disagree	238	12%
Rather disagree	586	29%
Hard to say	333	16%
Rather agree	649	32%
Strongly agree	240	12%

Table 29: What does your child lack now for comfortable learning?

Answer options	Number	Share
Access to the Internet/ mobile communication	821	40%
Communicating with classmates	721	35%
Everyday comfort at home (availability of light, heat, water supply, etc.)	526	26%
Comfortable and safe educational environment at school (availability of light, heat, water supply, etc.)	529	26%
Support and attention from teachers	517	25%
Extracurricular activities (for example, with tutors) in school subjects	290	14%
Learning tools (a separate gadget for learning, textbooks, etc.)	104	5%
All of the above/none of the above	109	5%
Support and attention of parents	80	4%
Other	88	4%
Hard to say	6	0,3%



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