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Resilience of education systems: what lessons can be learned from Ukraine?

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Resilience of education systems: what lessons can be learned from Ukraine?

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Summary

Since it began in February 2022, Russia's military aggression against Ukraine has led to a massive evacuation. Approximately 8.2 million Ukrainians are currently seeking safety in Europe, many of whom are children.¹ It has also led to the complete or partial destruction of more than 3,200 educational institutions across Ukraine.² In spite of these and many other considerable challenges, Ukrainian schools resumed education within 4-6 weeks after the start of the Russian aggression. Eighteen months into the war, they are carrying on with their daily work and responsibilities. This capacity of schools and teachers to deliver education in these seemingly impossible circumstances has reignited interest in the resilience of the Ukrainian education system.

In this report, we review the main determinants which, in our opinion, have contributed to a recovery and reinforcement of schools. This is conducted through a review of published research evidence, focus groups carried out with the parents of children in the EU and Ukraine, as well as interviews with school heads and teachers in Ukraine. We analyse several factors that have largely contributed to this educational resilience – the crucial role of ICT in teaching; strong leadership, uninterrupted communication and the changing mode of education governance, with more autonomy being given to schools and school principals; the crucial role of teachers; and the overall adaptability of the education system. In addition, we review the new functions of education system that have, in turn, contributed to resilience on a wider societal level. We conclude by discussing the importance of international cooperation to the recovery of education, research and innovation in Ukraine.

¹ Data reported as of May 2023: <https://data2.unhcr.org/en/situations/ukraine>

² <https://saveschools.in.ua/en/>

Introduction

The start of the Russia's large-scale military aggression on 24 February 2022 brought massive challenges for all social institutions in Ukrainian society, including its education system. The re-organisation of the educational process; concerns for the safety and well-being of children; overcoming the complete destruction of (or significant damage to) school buildings and infrastructure; and the shortage of teachers, were just a few among many urgent issues. Following the invasion, all educational institutions were immediately instructed by the Ministry of Education and Science to take leave until further notice. On 29 March 2022, the Ministry of Education and Science issued recommendations to switch to online education, stressing the safety of participants as its key point (Ministry of Education and Science of Ukraine, 2022).³ It should be added that the switch to distance learning that had begun in March 2020 as a result of the COVID-19 pandemic had provide a challenging process for Ukraine (Lokshyna & Topuzov, 2021) . Nevertheless, significant progress was made during that period that partially eased the new transition in 2022. The Ministry of Education and Science offered schools the opportunity to coordinate their strategies directly with their regional authorities. Despite many challenges, education was soon resumed online in 14 out of the 24 regions that were not directly within the war zone, while some regions pursued combinations of blended and in-person teaching (Kruszewska & Lavrenova, 2022). By early April 2022, the education system was more or less back to its full operational capacity, including in the country's north-eastern regions, which were affected most heavily from the start of the war. Moreover, high schools successfully carried out graduation examinations and the certification of students, and universities organised entry exams for the new academic year 2022/23. By September 2022, schools and universities fully prepared to resume their activities.

Such a fast recovery of the Ukrainian education system – albeit not without significant problems – naturally calls for an in-depth understanding of its key driving mechanisms and the processes. The aim of this report is to summarise the main findings in relation to educational resilience, following fieldwork carried out in Luxembourg, Poland and Ukraine between December 2022 and January 2023, as a contribution to the ongoing H2020 PIONEERED project.⁴ In addition to this, we have carried out an extensive review of relevant scholarly and policy sources on Ukraine. While the findings of this report are of particular relevance to Ukraine and its national education system, we believe they can also potentially inform European and international education systems wishing to strengthen their capacity to withstand potential shocks, driven by external or internal conditions. These include environmental disasters, health pandemics (such as recently experienced COVID-19 pandemic), socio-political turmoil, and the like. In the present report, we adopt the UNESCO definition of educational resilience as “...**the ability of education systems and learners to withstand, adapt to, and recover from shocks and stresses**” (UNESCO IIEP & UNESCO International Bureau of Education, 2015). In our research, resilient schools are resourceful and collaborative schools that succeeded in re-organising and adapting the education process under the conditions of war, while maintaining the quality of education, communication and daily management to the best of their capacity.

³ <https://mon.gov.ua/storage/app/uploads/public/624/44a/983/62444a98374d8370351160.pdf>

⁴ <https://www.pioneered-project.eu/>

Resilience of the education system

Our research aims to identify and summarise actionable and specific measures that can foster institutional resilience. These recommendations are drawn from the example of Ukrainian society: despite going through the major crisis of war, its education systems have striven to fulfil both their existing functions (teaching and educating), as well as new functions (support and the normalisation of life) with regard to children and their families, both in Ukraine and abroad. In recent years, resilience became a prominent policy theme, and is considered a highly desirable quality in social institutions. The COVID-19 pandemic, aside from causing major havoc in individual lives, presented an unexpected and unprecedented test for the core institutions that govern our lives, including education. During COVID-19, education systems across Europe coped with varying degrees of success when it came to learning losses, the duration of school closures, the use of ICT for learning, and supporting vulnerable children (Blaskó et al., 2022). The pandemic became the first *real-life stress test* that offered critical insights on the strengths and weaknesses of national education systems. Quality education is crucial to the recovery and stabilisation of economies from crisis situations such as the COVID-19 pandemic (Algan et al., 2021). Also important is the capacity of an education system to carry out other auxiliary functions, such as the normalisation of life, value orientation and the creation of support systems, which prevent a society from falling into a state of social anomie, which is a characteristic of societies in situations of war. Social anomie is extremely difficult for state for a society. It is characterised by a lack of social order, loss of common culture and the lack of a general system of norms, all of which are associated with the dysfunction of social institutions. Given the many benefits of education systems, ensuring their resilience is in the immediate interests of every modern society. Many current initiatives and policies at EU level emphasise the importance of supporting education systems to address the consequences of the pandemic (e.g. the Recovery and Resilience Facility, the NextGenerationEU development plan, the Pact for Skills, and the Council Recommendation on blended learning approaches).

The results of the present study corroborate previous findings that despite the tremendous challenges involved, the rapid restart and continuation of education in Ukraine largely benefitted children in the country (Lopatovska et al., 2022). Under wartime conditions, schools shield children, providing them with an impression of normality, and helping them cope with its psychological challenges. As our findings demonstrate, the resilience of an educational system adds significant value both to individual lives and to society as a whole.

Fieldwork in brief

To understand the drivers of educational resilience observed in Ukraine, between December 2022 and January 2023 we conducted a qualitative study with the participation of both parents and multiple educational actors. These included:

- 1. Five online focus groups** (5 to 8 participants in each) **with parents**, predominantly mothers, of Ukrainian schoolchildren. Each focus group contained at least one parent who had a child in primary, lower- and upper-secondary schooling. The socio-economic composition of families was comparable between focus groups with respect to their educational levels and occupational status. Two main differences were observed between groups in Ukraine and those elsewhere in Europe. First, adult male family members (husband and father of children) remained in Ukraine due to the military drafting regulation. Second, focus group participants in Luxembourg and Poland appeared more anxious and worried about the war and its consequences than participants in Ukraine.
 - Focus group 1 consisted of parents who had left Ukraine for Luxembourg;
 - Focus group 2 consisted of parents who had left Ukraine for Poland;
 - Focus group 3 consisted of parents who had remained in Russian-occupied territories throughout the period of the study;
 - Focus group 4 consisted of parents internally displaced within Ukraine;
 - Focus group 5 consisted of parents who had initially left to go abroad, but returned to Ukraine.
 - Focus groups 3, 4, and 5 were carried out with the parents from the regions most affected– Kharkiv, Donetsk and Luhansk.
- 2.** In the next step, we identified and contacted **six schools** in the city of Kharkiv and the Kharkiv region. Among these were schools that continued to operate under direct Russian military occupation between March and September 2022. **Twelve in-depth interviews** were conducted with administrative and teaching staff from these schools, two representatives from each school.

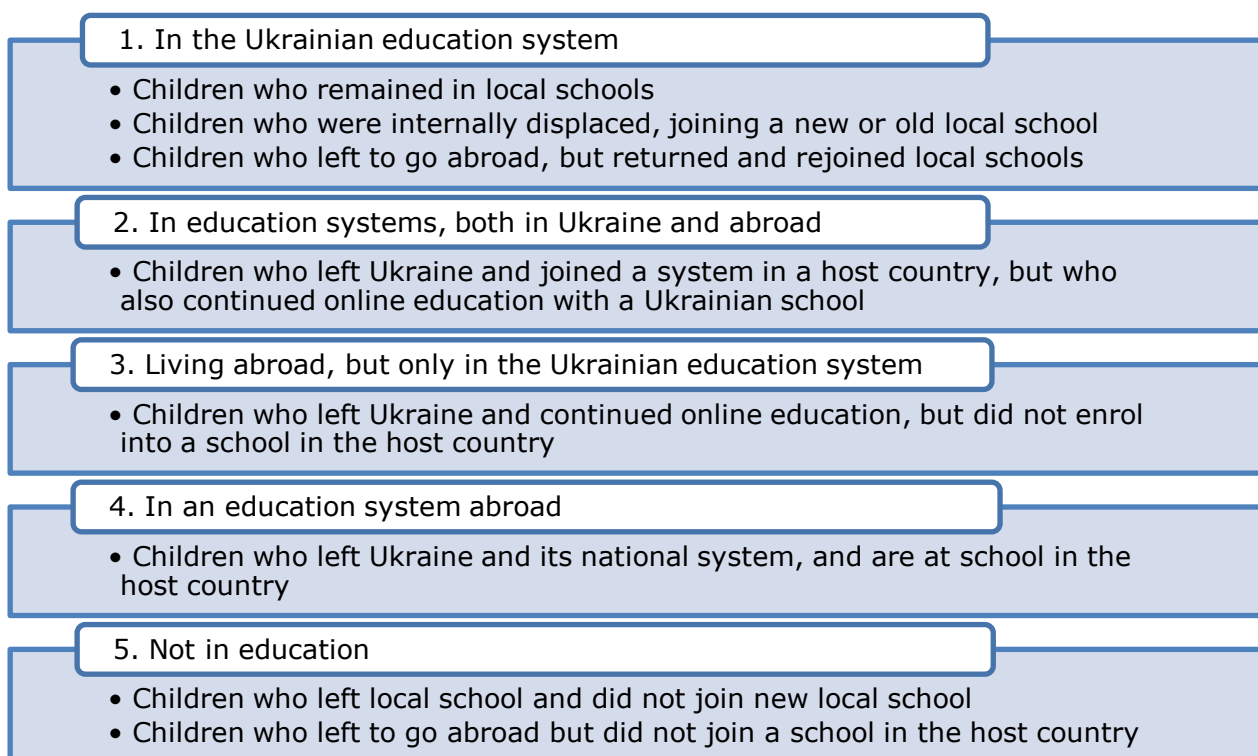
The interviews and focus groups covered a wide range of questions relating to education, including teaching, homework, communication, teacher-parent and teacher-student relations, daily administration and management, and the strategies designed by teachers and school management to resolve incoming challenges. In those focus groups that included parents, the parents were also asked about their plans to potentially return to Ukraine.

Interviews were pseudonymised and transcribed in Ukrainian and then translated into English. Key or useful quotations are presented in boxes, where *T* refers to a teacher, *P* refers to a parent, and *H* refers to a school head.

Different groups of learners – different needs

Ideally, a resilient education system should meet the needs of all of its students. However, in circumstances of a crisis such as war, this may not be realistic. In the context of education, we theoretically identify approximately five groups of the Ukrainian school-age children (see Figure 1).

Figure 1. Approximate grouping of Ukrainian children and youth in education



Schoolchildren who remained within the Ukrainian education system (Group 1) is the main and largest group, accounting for approximately 4 million children, according to the Ministry of Education and Research⁵ and UNICEF.⁶ Interruptions in teaching occurred at the start of the Russian military aggression, when all teaching was suspended in February 2022. Following the re-starting of schooling (between 2 and 8 weeks later), interruptions have continued to this day, and are caused by the ongoing bombardment and destruction of schools and educational institutions, power outages, and interruptions to internet availability.

Based on desk research and our fieldwork, children and families who sought safety abroad constitute a very large group, and can be divided into at least three sub-groups. The participants in our focus groups included parents whose children were engaged in two education systems, both in their new host country and in Ukraine (Group 2). It is important to underline that this situation is the choice of individual students and their parents, and

⁵ <https://mon.gov.ua/ua/news/majzhe-piv-miljona-vchiteliv-ta-vihovateliv-nadayut-osvitni-poslugi-u-shkolah-ta-dityachih-sadochkah-sergij-shkarlet>

⁶ <https://www.unicef.org/press-releases/start-uncertain-school-year-four-million-schoolchildren-ukraine>

there is no obligation to be enrolled in two education systems. The intention of this group was to return to Ukraine once the situation was considered safe, or following the end of war. Hence, they have tried to avoid being dropped from Ukrainian schools, enabling them to re-integrate without dropping a school year.⁷ However, these intentions might change depending on the length of the war. In the present report, we talk about these families' "plans", but we do not argue that they will necessarily pursue them. Our findings are in line with a multi-country survey carried out by the UNHCR, in which the majority of Ukrainian displaced persons "hope" to return, but are unable to make concrete plans while Russian military aggression remains ongoing (UNHCR, 2022).

The low enrolment rate of Ukrainian students into European and other international education systems (Group 3) is not the focus of this report, but still represents an important policy question. In May 2022, it was estimated that more than half of the Ukrainian children in host countries elsewhere in Europe are not enrolled in the education system of the host country. For instance, out of approximately 530,000 children currently living in Poland, only 194,000 are enrolled in local Polish schools (European Commission et al., 2022). The remaining students either study online at Ukrainian schools, or do not attend either the local or the Ukrainian school system. A similar situation is reported in the Czech Republic, where out of an estimated 70,000 students only around 27,000 attend local schools. Certain barriers exist that may explain this low enrolment rate. These include the capacity of local schools, particularly in larger cities where the majority of displaced persons are likely to be concentrated; language barriers which may prevent students from being able to follow lessons in the language of instruction; and shortages of teachers or a lack of resources to hire teaching staff. Other reasons are driven by parental choice: many families hope to return to Ukraine, and hence regard their stay abroad as temporary – i.e. the so-called "**waiting dilemma**" (Asscher, 2023) – hence, they do not consider it necessary for their children to be integrated into the local education system. According to estimates, nearly one million school-age children had already returned to Ukraine by January 2023 (IOM, 2023).

Among the families abroad are some students who are attending local schools and not pursuing a Ukrainian education in parallel (Group 4). The desk research did not allow the size of this group to be estimated, or to gain further insights into the educational strategies of these parents. Certainly, there are families that do not plan to return to Ukraine, either at present or once the war ends.

Lastly, there are children who, for various reasons, are currently not in education (Group 5). For instance, an estimated 19,500 children were illegally deported to Russia, according to Children of War⁸, a Ukrainian website dedicated to assisting the search for these children. The living conditions of these children, as well as their access to healthcare and education, remain worrying. Potentially, there may be other children, both in Ukraine and in the EU, who are not in education and who also deserve special academic and policy attention, but these are not the focus of the present study.

⁷ The recent Ministry of Education and Science decree of 15 May 2023 ensures their integration into a corresponding grade upon their return to Ukraine. At the time the fieldwork was carried out (December 2022 – January 2023), this decree had not yet been issued, and hence the current situation regarding displaced persons might be different.

⁸ <https://childrenofwar.gov.ua/en/>

This report focuses primarily on the national education system of Ukraine, which serves the educational needs of the children in Group 1, and partially those in Group 2 – about whom the parents participating in our focus groups offered their input. The remaining groups are not discussed within the framework of the present report.

Main drivers of educational resilience in the Ukrainian system

The smart use of ICT in education and communication

According to the schools interviewed, the previous switch to distance learning and the acquisition of ICT skills during the COVID-19 pandemic enabled Ukraine to resume teaching activities within relatively short time– between two and six weeks after the start of military invasion. While some schools, including those in Russian-occupied areas, maintained in-person learning, up to 92% of the entire country switched to online education (Kruszewska & Lavrenova, 2022).

From the first day of Russia’s full-scale invasion of Ukraine, an order was issued by Ukraine’s Ministry of Education and Science concerning forced vacations. Following a period of enforced vacation, those regions that were not within the combat zone resumed teach in a distance learning or blended format. Only higher education institutions or schools with special educational conditions (sports boarding schools, police schools, etc.) resorted to the blended format. Even schools in the Western part of Ukraine did not risk switching to a blended format, because school buildings are not equipped with fully-fledged bomb shelters to which students must be transferred during air raids. From mid-April 2022, all schools, regardless of whether or not they are located close to hostilities, resumed the educational process using a distance learning format. Education took place in **synchronous mode**, according to a schedule. All classes were held using software such as Zoom, Google Meet, and so on – even physical education classes. Only those students who were forced to move abroad, and who chose to study in both foreign and Ukrainian schools in parallel, study **asynchronously**.

Our analysis suggests that teachers are free to choose, from a variety of options, which software and platforms they wish to employ for teaching purposes. In other words, there is no indication that national or regional education authorities require the compulsory use of a specific teaching medium. Instead, teachers can use the combination of digital tools that is most convenient for them. Such freedom of choice and variety of tools contributes to the more effective delivery of teaching, as it can be adapted to the children’s age, subject and the type of task at hand – e.g. the correction of assignments, grading, etc. For online classes that were live-streamed according to a schedule, teachers commonly used Google Meet, Zoom and Discord.

T1: 'The school does not limit me as a teacher in choosing technologies that are more convenient for me to use... Which platform to use is the teacher's own desire and decision. No one "from the top" imposes them...'

As the relentless bombardment continued of Ukrainian civic infrastructure providing electricity, heating and access to the internet, basements and shelters became students’ classrooms. Multiple teachers referred to preparing recorded material in advance, and with time, learning to anticipate when blackouts were likely to happen. To prepare for it not being possible to carry out lessons according to the schedule, materials were recorded and made available **offline**. Rather than missing a class, such an approach enables students review the material when electricity or internet once again became available. Human

School⁹, Google Classroom, Novi Znanja¹⁰, E-School¹¹, Na Urok¹² and Vseosvita¹³ are the most frequently used educational platforms. These contain not only lectures recorded by teachers, but a variety of learning and support materials, such as the preparation materials for exams and electronic textbooks. Furthermore, some of these online platforms, such as Na Urok and Vseosvita, are used by many teachers to help them to grow professionally and improve their pedagogical skills". Electronic diaries can also be integrated with these platforms, enabling teachers, parents and students to track learning progress – both for students studying in Ukraine, and those outside. Some teachers have also used other tools, such as YouTube, to which they have uploaded lectures. All respondents also emphasised that without exception, textbooks for all subjects were available for download on school websites. It was also noted that at a student's request, schools can issue paper-based textbooks, which can be sent by mail if the student is in another city.

However, for **vocational education**, restarting education proved a bigger challenge (Kovalchuk et al., 2023). Because professional training is a more applied form of learning, it requires the direct use of specialised equipment and face-to-face learning from teachers. Due to the daily bombardment of civic infrastructure, public and private spaces, many vocational and professional schools became damaged or destroyed. On 7 April 2022, Ukraine's Ministry of Education and Science issued a special letter concerning the completion of education in vocational and technical schools. Under the terms of this letter, theoretical education based on online learning should go ahead, while practical training was to be completed after the end of war (Kovalchuk et al., 2023). However, as Kovalchuk et al. argue, the availability of digital technologies means that students can, with the support of teachers, digitally model the process. While switching to online education was the only choice given, the more extensive use of ICT – both now and in the future – could advance and modernise vocational education in Ukraine. As evidence, the authors refer to the example of Germany's use of digital technologies in vocational education and training (ibid.)

Offline access to coursework and learning materials also provided help to those students who left Ukraine and enrolled in the local schools of receiving countries, but who nevertheless also wished to continue their education within the Ukrainian national education system. Many internationally displaced families hope to return home once the war is over, which is one of the principal reasons for children to continue studying in Ukrainian virtual schools. However, as the war has gone on and some cities and villages have been completely destroyed, there is no certainty that these plans will be realised.

T1: '... We have many students in our school who attend schools abroad, but it is important for them to be certified in Ukrainian schools as well. Teachers try not only to send such children some basic tasks, but also instructions on how to complete the tasks. I personally try to make a high-quality presentation, according to which the child can see the basic formulas, basic rules, examples of problem solving, and I leave this presentation in the Classroom - for those children who were not present at the lesson. At any time, convenient for them, they can review this presentation, make a short synopsis, complete the tasks...'

⁹ Ukrainian educational platform (<https://www.human.ua/schools>)

¹⁰ Ukrainian distance learning platform (<https://nz.ua/>)

¹¹ Ukrainian online school platform by the Ministry of Education and Science (<https://lms.e-school.net.ua/>)

¹² Ukrainian educational platform (<https://naurok.ua/>)

¹³ Ukrainian educational platform (<https://vseosvita.ua/>)

One important factor that contributed to the quick restart of the teaching process we observed in resilient schools in our study was **uninterrupted communication between all parties**. The beginning of the crisis gave rise to a lot of fears and concerns about physical safety, as well as uncertainty concerning the restarting of education. Our interviews show that in resilient schools, communication remained uninterrupted – and even intensified during the first weeks of the war. Zoom, Viber and Telegram were the most commonly used tools across an average of four **parallel communication groups** (among teachers themselves; between teachers and the school administration; between teachers and parents; and between teachers and students).

T4: 'The administrator immediately wrote to the teaching group in Viber that the situation had escalated and that we should not go to classes... Everyone wished each other to stay safe and immediately we all started writing to the children, asking if everyone was doing well. We had all kinds of groups in messengers – both parent and student groups. ...We communicate with our colleagues all the time. We have meetings in Zoom, we have groups of teachers in messengers, where we constantly communicate and solve urgent problems...'

Ongoing communication also helped teachers to collect key information about students' whereabouts: since February 2022, the heavily affected north-eastern and eastern regions of Ukraine, as well as other areas, have experienced significant population movement and displacement.

P: 'Our Kharkiv teacher interviewed all parents and children every week, asking where are we, what is our situation, ... if we all have the conditions to study...'

For those students learning remotely from abroad, links with teachers in their Ukrainian schools helped re-integrate into education process, communicate their progress and keep them motivated.

T2: 'There are parents who went abroad with their children... Children go to school there, they don't want to be expelled from our school, but they also don't want to or don't have the strength to do something according to our programme. That's why I call them, persuade them, ask them to fulfil some minimum requirements so that the child is certified... Teachers provide all the necessary materials for those children who cannot attend classes. Video lectures, presentations are uploaded to Classroom, so that the child has something to rely on when completing the task...'

Lastly, beyond education itself, access to and use of ICT has served as a valuable strategy for **psychologically coping** with the situation of war – both through communication and support from family, friends and classmates, as well as serving as a distraction through the consumption (e.g. YouTube and the like) or creation (e.g. TikTok and alike) of content online (Lopatovska et al., 2022).

Education governance in times of crisis: renegotiating centralisation and autonomy

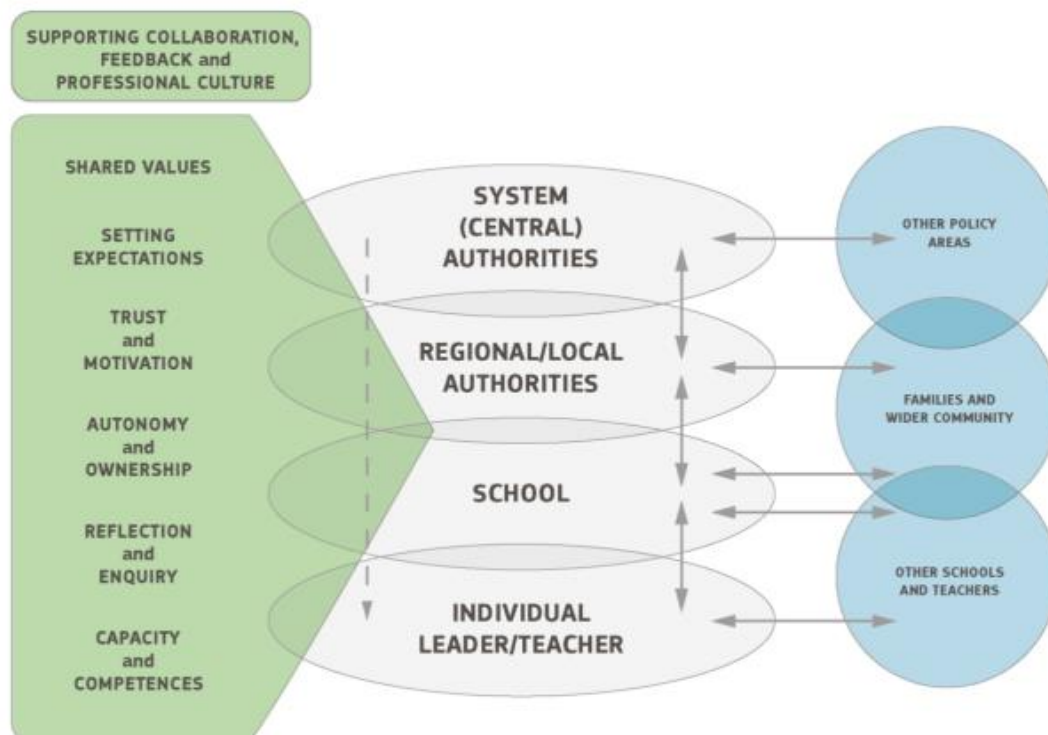
Education governance refers to decision-making and management by relevant authorities concerning various aspects of education. Governance is traditionally based on formal regulations, such as laws and policies that determine the organisation, funding and provision of education and training. Among key areas concerned are teacher training, curriculum development, progress assessment, certification and diplomas. Governance is carried out by national and (if applicable) regional state agencies and school management, as well as other public and private stakeholders.

Significant variation exists between countries as to the degree to which governance is **centralised vs. de-centralised, and the extent to which autonomy is granted to individual schools and teachers**. In a centralised system, decisions follow a top-down approach, while in a de-centralised system, certain decisions are taken by the main governing body, while others are taken at regional or local levels.

There are benefits and merits to both ways of managing education: for instance, a centralised governance model can ensure the more equitable distribution of resources and the standardisation of education. De-centralised governance, on the other hand, is better at adapting and responding to the needs of schools and schoolchildren at local level, especially in big countries, as well as better managing the bureaucratic hurdles that are more common in a centralised model. The autonomy of schools and teachers has received great attention both globally and in Europe, in part due to the OECD PISA results (OECD, 2016). Autonomy refers to the degree of control over decision-making at local (e.g. school) level, regarding aspects such as the school curriculum and the teaching methods used by teachers. More autonomous schools and teachers tend to have better student outcomes and bring more innovation into education system (ibid.).

To identify the mechanisms and actors that were key to the restart and continuation of education in times of prolonged military aggression, we look at the *behaviour* of actors at various levels. To begin with, we refer to the model of education governance proposed in the report 'European ideas for better learning: the governance of school education systems' (European Commission, 2018). This is a holistic model that identifies the levels of actors and decision-makers in education system (in grey), but also takes into account other actors that are directly related to education process, yet are not officially involved in governance (in blue). In addition, it identifies the means by which management is supported (in green).

Figure 2. Holistic model of educational governance



Source: European Commission (2018)

For the purposes of the present study, we group the relevant actors by following the most common sociological approach, i.e. by levels: the 'macro level' includes the central authorities – in this case the Ministry of Education and Science of Ukraine; regional and local authorities, as well as schools, are considered the 'meso level', and individual leaders/teachers are the actors on the 'micro level'.

Prior the war, the Ukrainian education system implemented reforms with the goal of moving towards European integration. These reforms were based on the principle of de-centralisation, the essence of which is the transfer of decision-making rights from central state authorities to local authorities and the granting of significant autonomy to educational institutions. These reforms were a part of national reform plan following the Revolution of Dignity in 2014, which aimed to foster collaborative governance and participatory democracy through active and direct citizen engagement in decision-making (Huss, 2022). All of the new evidence reviewed points to the fact that the war has further reinforced this shift, boosting nation's identity and overall resilience (Goodwin et al., 2023).

Conditions of war put the governance of education to a tremendous test. In circumstances of crisis, the system cannot continue to operate under existing rules, and must quickly adapt to regain its functionality. For instance, a fully centralised management system would significantly slow down all processes and reduce the effectiveness and relevance of decisions, given the constantly changing situation, while fully de-centralised management could potentially render the education system chaotic.

The Ministry of Education and Science officially announced the suspension of educational activities on 25 February 2022. A Concept Plan was issued on 15 March 2022, stressing the importance of the education system being adaptable and flexible under war conditions.¹⁴ It was also suggested that educational institutions should coordinate their activities with the security departments of regional/local administrations. In other words, understanding the scale of the challenge, the main governing body (the macro level actor) granted more power and responsibilities to regional/local authorities and schools (the meso level actors). Under crisis conditions, effective collaboration and execution of duties, as well as the timely provision of information from the respective governing actors, are important not only from an organisational and managerial perspective, but also from a psychological point of view. Such effective actions signify that education actors are not left to their own devices, but that the authorities are continuously in charge, and the functioning of all schools continues to be monitored and supported.

Our desk research on the actions and policies of the regional/local authorities – using the Kharkiv region as an example – was based on a review of the official documents available at its website. The Kharkiv region was heavily shelled, and underwent massive destruction and partial occupation. Hence, it was expected that the resumption and management of education processes would face many challenges. Indeed, the official websites of the Department of Science and Education of the Kharkiv Regional Military Administration, the Department of Education of Kharkiv City Council, and departments of education in the communities of the region showed a substantial lack of information and coordination efforts. Under such conditions, schools and communities do not receive appropriate guidelines and recommendations at local level. While the Department of Education of Kharkiv City Council published information, in many cases this consisted of links to documents from the Ministry of Education and Science. At the same time, no clarifications were issued regarding the application in Kharkiv schools of the Ministry of Education and Science's recommendations, and no concrete reports were issued regarding decisions made by the city authorities. In other words, regional-level governance did not fulfil its duties to the degree expected.¹⁵

In many cases, schools lost contact with local education authorities and therefore began to exercise more direct autonomy in their decision-making. In other words, **school directors, together with school management bodies, willingly took over part of the responsibilities of the regional and local governance.**

As schools gained considerable freedom, it allowed them to remain both **more flexible** and **more operational**, and to adjust to the situation as it evolved. We also observed that in resilient schools, **decisions were made by school management**, and their **execution was carefully monitored** to maintain the quality of education.

¹⁴ <https://drive.google.com/file/d/1BGeQRV9TLKP2phzNa0Yo5dXMbVAEgDy8/view>

¹⁵ Шкільний освітній процес Харківщини в умовах війни | Аналітичний центр «Обсерваторія демократії» (od.org.ua)

H1: 'When the educational process was officially restored... there was strict control over the activities of teachers. A lot of effort was put into it, so that all teachers conducted online lessons and all students attended them.'

In such a situation of war, an effective **support system at school**, at both *vertical* (between the school management and teachers) and *horizontal* (among teachers) levels, became crucial for the problem-solving.

T2: '...Our administration is completely open to interaction. For any question, if I don't understand something, I can call the deputy director and I always get help. The same with fellow teachers. We always go to each other's aid.'

The crisis management and **leadership qualities** of school administrations underwent a stringent test. In interviews and focus groups, respectively, teachers and parents often suggested that their schools were successful due to the professional qualities of the school management.

P: '... Quick decision-making and looking for different options to work effectively... High organisation and control from management. The establishment of systematic communication between all participants. I think that the manager and the administration play a big role. How they organise it – that's how everything will work...'

TA10: 'Yes, from 24 February we had an enforced vacation, but we needed it in order to decide what we will do next and how. The school director and teachers went to school every day, met, consulted, developed an action plan, and decided how we should work. We developed a precise schedule of online consultations, a schedule of online classes from 14 March.'

Individual leadership qualities of school directors were often underlined as crucial to the restart and to the management of the educational process. Some directors were determined to motivate and support their teachers through their own examples, while in other cases, they took upon themselves additional duties as subject teachers due to a severe shortage of teachers at the start of the war. In our study, resilient schools were those with strong school and individual leadership.

T1: '...I want to say that we need to thank the school very much for such work. And a lot depends on the director. She is always at school, she runs, she has to know everything: who is doing what, where it is being done, etc. As for education – both the director and the deputies keep their fingers on the pulse. All lessons are held.'

H1: 'In order for my team to work well, although I am a director, I try to work as a teacher at the highest level...'

At the opposite end of the spectrum, in non-resilient schools, the management and director appeared to lack leadership skills and the ability to assume new responsibilities.

P: '... Due to such a crisis situation, neither the director nor the administration could find and show their organisational abilities. They put the responsibility on the teachers, and the quality of teaching and learning depends on each teacher...'

In brief, the success of individual schools in responding to a crisis of such unprecedented scale was the result of a (somewhat forced) increase in school autonomy, and the leadership skills of school management teams and their directors. Successful schools centralised decision-making, but monitored carefully and stayed on top of things as the situation evolved. In addition, their reliance on professional networks greatly contributed to the school reactivity and its ability not only to resume teaching, but also to address various challenges as they emerged.

Teachers at the forefront of system resilience

Throughout all the interviews and focus groups in our project, the key role in resilience played by teachers became particularly obvious. The statement below well reflects a shared understanding of how important teachers were back then, and remain today.

T7: 'You probably know that teachers are such real superheroes of today, who are stress-resistant, adapted to any extreme situations, and who need to think quickly, quickly make multiple and correct decisions. If you recall the first day of the full-scale invasion, none of the teachers prepared for it or thought about it.'

In the cases of some schools, directors and management had to take some difficult decisions. For instance, many teachers, particularly in heavily affected areas, sought safety for their families and left their schools, creating a stark shortage of teaching staff. Among those teachers who remained, some individually volunteered to take on **more teaching duties** – including the school directors who are teachers themselves.

H1: 'It so happened that at the beginning, about a third of the teachers were not capable of conducting classes. Therefore, I personally took three times as many classes, as I could, and conducted these classes as a subject teacher.'

In other cases, schools took the decision to set up a "second shift" for teachers, both for **additional lessons and tutoring** (consultations). These measures were targeted at helping students studying abroad, as well as students who were unable to attend classes at the relevant time (due to bombardments, power cuts, etc.), and those who were preparing for crucial exams. This was a collegial decision of these schools, and a measure agreed upon by the entire team – despite the fact that teachers were not paid for these extra hours of work.

More resilient schools had specific protocols for teachers in emergency situations, which were employed in these circumstances. For example, in the event of electricity outages:

TA9: 'If there is a blackout situation , there are clear instructions (we discussed them at the meeting): 1) Everyone should prepare for it, that is, the laptop and all power banks should be charged; 2) children should know where to take assignments if the teacher is absent from class; 3) Fill out the electronic magazine (E-School) in advance – you can write the topic and the tasks for the topic there; 4) Make video recordings of lessons and teach in the cloud environment.'

As the destruction of civic infrastructure created many barriers for education, teachers were praised not only for their professional qualities and dedication, but also for their **resourcefulness** and **capacity to anticipate**.

H2: 'When we were under occupation, we had no electricity supply for six months. There was also no internet connection, but in some places, it was still available... There is a big tree near my house. I climbed a high branch of this tree and sent assignments and study materials in Classroom or Viber for those children who left and had a good internet connection... And one of the teachers went into the forest where, in some parts, you could catch the Internet.'

Teachers also played an important role in providing psychological support for children to **cope with fear and trauma**. For instance, up to 44% of students in vocational and technical schools struggled psychologically, and this affected their ability to study (Kovalchuk et al., 2023). Among displaced students, as observed in Lithuania, those who moved at the start of war had fewer and milder psychological difficulties than those who remained longer in Ukraine before leaving the country (Jakavonytė-Staškuvienė, 2023). Before February 2022, each Ukrainian school employed a trained psychologist; however, the war quickly led to a shortage in mental health services. Some teachers rose to the challenge by taking psychology courses online. The benefits of such training were evident in daily interactions with children. The continuation of both educative and non-educative interactions (e.g. singing, celebrating holidays or birthdays) – even if it took place online – had a calming effect on children, allowing them to re-focus on education.

However, it must be acknowledged that teachers themselves were and remain under tremendous pressure and stress (Lavrysh et al., 2022). Working conditions are more difficult among primary school teachers, especially at the start of primary education: young children do not yet possess the skills and capacity to follow education material independently – hence, the participation and help of parents is key. Some studies show that teachers reported a significant increase in working time and decreased levels of energy and motivation, and in some cases exhibited the symptoms of burnout (Velykodna et al., 2023). However, teachers reporting high levels of stress and large workloads often work in schools in which the school management did not succeed in effectively re-organising the education process (ibid.). We observe similar patterns: resilient schools have more effective workflow strategies, with clear communication and support channels. On a more positive note, our interviewees reported that for teachers, having to attend to their daily work also appears to help them to cope psychologically with the war situation. A similar observation was reported in another study on the experiences of Ukrainian teachers (Lavrysh et al., 2022).

Adaptive education

Adaptability and flexibility of an education system is necessary not only for its survival as a social institution, but also for its upgrading and modernisation. Challenging situations – of which the war in Ukraine is one of the most extreme examples – forced education systems to rapidly and efficiently address and resolve unanticipated challenges.

In the case of Ukraine, one of these is the large outflow of students abroad. Among those families who left the country, many students are still eager to remain enrolled in the Ukrainian national education system. Some students who left attend local schools in their host countries while also continuing to follow online education in their Ukrainian schools as a second shift. There are also students who are only enrolled in local schools in the receiving country, but who would like to transfer their study credits to the Ukrainian system. In addition, there are those who did not enrol in schools of the receiving country, but continue to attend online Ukrainian education.¹⁶

According to their reflections, foreign educational programmes are very different from Ukrainian ones, according to both the teachers and parents interviewed. However, we do not find any scientific or policy evidence of actual differences between the curricula in Ukraine and other European countries. Instead, we share the feedback we received during the interviews carried out for the present study. For instance, as one teacher put it when discussing the recognition in the Ukrainian system of international grades and education received abroad:

*T7: 'In addition, for those children who are abroad, our school has adopted the following system: at the end of the academic semester, they send us a certificate with the grades they received in foreign schools, and our teachers adapt these grades to our grading scale and re-enrol them. That is, we have the right to consider the grades received there as confirmation of the implementation of the curriculum in our educational institution... **This is difficult and does not always work out, because the curricula of foreign schools do not match ours at all. As a rule, it lags behind ours by two years.**'*

A direct transfer of credits is therefore a very challenging and a delicate matter. This situation is particularly challenging for older children in grades 9 and 11: according to Ukrainian standards, those graduating from grade 9 and moving into the final two years of high school need to pass graduation tests. Students in grade 11 also need to pass national tests and receive the Ukrainian high school certificate in order to apply to universities.

Ukraine's Ministry of Education and Science is determined to certify all children who wish to continue their education within the national system. On a practical level, however, following two education programmes simultaneously has proved challenging. Being aware of this, Ukrainian schools have **eased the requirements** for those students who are studying in schools abroad. While they continue to fully provide these students with educational materials (video, audio, presentations, electronic textbooks and assignments), they have **reduced the number of mandatory tasks**. In other words, students are only expected to demonstrate the completion of core assignments in order to have minimum

¹⁶ This group is fairly numerous, and would require separate research focusing on understanding their choices and circumstances, which is not within the scope of the present report.

required credits for Ukrainian school. Nevertheless, it is important to underline that the parents and teachers interviewed were **not willing to compromise on educational standards**, insisting that the students should properly learn and master the material.

T1: '... We have many students in our school who attend schools abroad, but it is important for them to be certified in Ukrainian schools as well. Teachers try not only to send such children some basic tasks, but also instructions on how to complete the tasks. I personally try to make a high-quality presentation, according to which the child can see the basic formulas, basic rules, examples of problem solving, and I leave this presentation in the Classroom for those children who were not present in the lesson. At any time that is convenient for them, they can review this presentation, make a short synopsis, complete the tasks... If those children who attend the lessons on the topic must pass eight homework assignments, for those children who are outside Ukraine, we do not require all eight works, because, of course, it is difficult.'

Many of the schools interviewed organised contact hours during which students living abroad could reach out to teachers in Ukraine for extra tutoring and to ask questions related to the learning material.

T5: '... In our lyceum, there are separate additional classes/consultations in the evening for the main subjects such as the Ukrainian language, mathematics, physics, computer science and a foreign language. This was done for the convenience of those children who are abroad, and at the great request of their parents...'

Our interviews and focus groups were carried out between December 2022 and January 2023, and therefore do not reflect more recent developments within Ukraine's national education system. In particular, the Ministry of Education and Science issued regulations on 15 May 2023 that aimed to clarify the situation of displaced Ukrainian students.¹⁷ According to these, students living abroad do not need to continue online education according to the Ukrainian curriculum in order to re-enter at an expected grade upon their return to Ukraine. The new regulations also provide guidelines for the recognition of education received abroad by such students. At the time of writing, this is a very recent decree, and more time will be needed to evaluate its actual implementation. Undoubtedly, this is an important policy development that should be further monitored with respect to its impact on Ukrainian students' enrolment in European schools.

Aside from educational support, teachers have also put tremendous efforts into encouraging and psychologically motivating children to study. These observations are in line with the findings discussed in the section above concerning the key role played by Ukrainian teachers.

T2: 'There are parents who went abroad with their children and still have not come to their senses. Children go to school there, they do not want to be expelled from our school, but they also do not want to or do not have the strength to do something according to our programme. That is why I call them, persuade them, ask them to fulfil some minimum requirements so that the child is certified...'

¹⁷ https://osvita.ua/legislation/Ser_osv/89142/

For students who began being educated abroad, but did not follow Ukrainian online education, schools offer a solution whereby the grades obtained in foreign education system can be “translated” and accepted by Ukraine’s national system upon the student’s return.

T8: 'There is such a decision that we have the right to recalculate the grades that the child received abroad, but the subjects must correspond to our programme. Upon return, the child has the right to complete the programme externally, i.e. to pass the exams and close that year. In general, if the child received at least one grade in the subject, the child can already be certified. Therefore, it is better and easier, after all, not to withdraw from the Ukrainian school...'

New functions of education in times of crisis

Challenging situations such as the war in Ukraine can also lead social institutions to take on new roles that help, at least partially, in managing the crisis. As became clear from the interviews carried out for this study, Ukrainian schools have taken on several vital functions that go beyond their traditional roles.

Following the intense bombardment and partial or complete destruction of houses, schools frequently have become a place of **shelter** for people in nearby areas. Again, teachers have played an important role and organised themselves in shifts to provide basic care.

T6: 'Our school functions as a "point of invincibility". They prepare food, receive and distribute humanitarian aid- to those people who need it. They take in people who have lost their homes and have nowhere to shelter. There are teachers on duty. They work and help on a volunteer basis...'

T2: 'When the full-scale invasion started, our school started accepting people who needed shelter, food, who had lost their homes. A shelter was equipped in the school. There were many people there. Food was prepared for them in our dining room. Everything was arranged so that they could rest and sleep. Humanitarian aid and clothes were brought to them. And our teachers worked there. The administration and the director were constantly on site and even lived at the school. As our principal says: "The school is our home." This formed the position of our school as stable and indomitable, just as indomitable and indomitable as our Kharkiv.'

Many teachers in Ukraine have taken training in **first aid and psychological help**. Their concern for students' well-being came across very strongly in our interviews, and earned much recognition and praise from the school directors and parents. Their contribution to the **normalisation of life for children**, especially those who remained in areas of heavy military action or occupation remains invisible, but should not go unnoticed.

T6: 'For example, there is an online lesson and an air alarm sounds. And you see that one of the students is running somewhere with a laptop. You carefully ask what happened, and he says: "I'll just go to the corridor now, because it's quieter here." You say: "Then it's better to leave the lesson and stay in a safe place." And he answers: "No, no, I don't want to, because I'm more relaxed with you. I will listen to you, and everything will be fine"...'

Some teachers have developed their own routines with children: regularly coming together online outside of school hours so that they can talk, sing and celebrate holidays or birthdays. An important part of this psychological support is also the nurturing of hope and the building of support networks. Importantly, such efforts have a **multiplier effect across social groups**, thus contributing to a more resilient society.

Parents and teachers who were interviewed talked about new elements in the formal and informal curriculum about Ukrainian history and culture. During the attack on the country, such elements came in naturally and were not forced, as might have been in some education systems controlled by state propaganda. As part of efforts to support Ukraine's army, emergency services and volunteers, students actively engaged in activities such as

fundraising, communication campaign, preparing packages of food, medicine, etc. These initiatives were put in place across many schools and coordinated by teachers. This is an example of how the education system carries out a supplementary but an important role in (re-)building and (re-)enforcing **national identity** and strengthening **social cohesion**.

International cooperation

In the final chapter of this report, we review some of the initiatives and actions that national actors in education – mainly the Ministry of Education and Science of Ukraine– have carried out in collaboration both with the European Union and internationally.

In order for the international community and partners to understand the dire situation in which the Ukrainian education system and schools were – and still are – operating, the Ministry of Education and Science needed to adjust its **communication strategy** and offer a broader **access to information**. One of the steps implemented by the Ministry of Education and Science was to create a special English-language section on its official website, '[Ukraine: support to education and science in wartime](#)'.¹⁸ Information is an important resource in times of war, and therefore having access to and official information, updated in a timely manner, is crucial. Importantly, the Ministry of Education and Science uploads frequent updates, each referred to as an 'Overview of the current state of education and science', in which the main events, projects and developments are summarised in English. The government has also created a special website, '[Education in emergency](#)'¹⁹ which provides an interactive map detailing damage to kindergartens, schools, universities and infrastructure, arranged by region. At the time of writing, 3,267 educational institutions have been partially or completely destroyed.

The Ministry of Education and Science has also adopted a more **pro-active approach** towards the **international community**. For instance, as **online technologies** became the principal tools for distance education both within and outside of Ukraine, the Ministry of Education and Science reached an agreement with the Zoom company to provide free and extended access to the software.

Another example of a challenge that required special attention was the **organisation of graduation exams** (the National Multi-Subject Test) for students in secondary schools. To carry out these exams for students outside of Ukraine, the Ministry of Education and Science (in partnership with the Ministry of Foreign Affairs of Ukraine) contacted educational authorities in host countries across Europe and beyond.²⁰ As a result, the Ukrainian government concluded agreements with 26 countries around the world in which the National Multi-Subject Test was organised and carried out.²¹

Contacts and cooperation with the EU and European countries on a bilateral basis have also intensified. At the onset of the war, neighbouring countries received the largest share of displaced persons from Ukraine. As shown by statistics, many of them were young children. According to estimates, in Poland alone there are between 700,000 and 800,000 Ukrainian children – by far the largest share among EU countries. One of the collaborative

¹⁸ <https://mon.gov.ua/eng/ministerstvo/diyalnist/mizhnarodna-dilnist/pidtrimka-osviti-i-nauki-ukrayini-pid-chas-vijni>

¹⁹ <https://saveschools.in.ua/en/>

²⁰ Order No. 433 of 05/12/2022 'On approval of the Procedure for conducting the national multi-subject test in 2022'.

²¹ These countries are (in alphabetical order): Austria, Belgium, Bulgaria, Canada, Croatia, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Latvia, Lithuania, Luxembourg, Moldova, Poland, Portugal, Slovenia, Switzerland, Turkey, the UK and the USA (https://osvita.ua/doc/files/news/870/87058/62ebb815028ce940938821__1_.pdf)

projects between Ukraine and its EU neighbours was the setting up **of schools that follow the national Ukrainian curriculum and teaching in the Ukrainian language**. Such schools opened up in Poland, Lithuania and the Czech Republic. Local authorities, NGOs, state and private donors have frequently worked together on such projects. Teachers were frequently recruited from among Ukrainian displaced persons. Undoubtedly, such schools were the easiest for refugee children to integrate into in the short term, as well as helping to avoid children whose families were determined to keep them in Ukrainian education from having to study in two parallel education systems while living abroad.

P: 'My youngest child studies both at the local Polish school and at the Kharkiv school at the same time. We manage everything, because for the Ukrainian school we need to do some tasks – and that's it... The eldest daughter (11th grade) is studying here in Poland according to the Ukrainian programme. A school has been opened in our city, which works with Ukrainian teachers, according to the Ukrainian programme. Therefore, we do not study in parallel in Ukraine, because there is no sense in this...'

Very quickly, however, such schools reached their full capacity. Also, as the war is still ongoing, such *ad hoc* solutions now require medium- to long-term planning and resources. Due to many families being caught in the “**waiting dilemma**”, EU states are strongly encouraged to enable all Ukrainian children to participate fully in local schools (Asscher, 2023; European Commission, 2022).

On 15 June 2023, the European Commission signed an Arrangement for Cooperation with the Ministry of Education and Science of Ukraine, which covers several aspects of education²². Bilateral agreements have also been signed, for instance between Germany's Federal Minister of Education and Research and the Ministry of Education and Science of Ukraine, on priority areas of collaboration in education and science, signed in February 2023.

The EU has provided longstanding support to the education sector in Ukraine long before the war, including for the 'New Ukrainian School' and vocational education and training (VET) reforms. The full-scale Russian aggression has led to a readjustment of existing support and additional priorities. Among these are:

- Repurposing of existing projects to allow for emergency support for pupils (shelter, food, equipment, transport (e.g. the 'School buses for Ukraine' initiative), electric generators, psychological support etc.);
- Refurbishment and reconstruction of school buildings destroyed by Russian armed forces;
- Re-skilling for reconstruction, continued support for the refurbishment of VET schools via EU4Skills, and the creation of VET centres of excellence.

EU efforts to support the education sector in Ukraine extend beyond compulsory education, and also cover the **tertiary education, research, science and innovation**. Since the beginning of the war, the European Commission has provided maximum flexibility under the Erasmus+ programme in support of young people, students and staff from Ukraine.

²² https://eu-solidarity-ukraine.ec.europa.eu/document/7feb877e-3cc0-4302-94f3-d3436aee293f_en

Under the 2022 Erasmus+ European Universities call, Ukrainian higher education institutions were eligible as associated partners in European Universities alliances. Moreover, a special call for proposals was launched under Erasmus+ Capacity Building in Higher Education, to establish an open education university digital environment in Ukraine to allow displaced students to continue their university studies.

The President of the European Commission recently announced support for Ukrainian scientists through the setting up of a Horizon Europe Office in 2023, which would facilitate the country's integration into the European research area. This office will coordinate and support the National Contact Points across Ukraine, as well as fostering research and innovation between Ukraine and Europe. Under Horizon Europe, the European Commission and EU Member States have introduced a dedicated scheme, MSCA4Ukraine, to support displaced researchers from Ukraine at doctoral and postdoctoral levels, to continue their work in academia, research centres and public institutions based in the EU and countries associated with Horizon Europe, while aiming to support their reintegration in Ukraine when safe conditions for return are met. The European Institute of Innovation and Technology (EIT) will set up an EIT Community Hub in Kyiv in 2023 to enhance its presence on the ground, following its investments to support innovative Ukrainian universities and businesses. Similarly, the OECD inaugurated its office in Kyiv in March 2023. In addition to the OECD's plans to support Ukraine in its recovery, the parties signed an agreement for Ukraine's participation in the PISA 2025 study.

International support and tangible collaboration are very important for any education system to maintain its operations during any crisis, but are especially important in a war situation. This is true of any social institution in any country. Given the scale of human tragedy and destruction, Ukraine has received overwhelming global support, which has been earned through the bravery and resilience the country has shown to the world.

Lessons learned

The worldwide respect for the ability of the Ukrainian nation to resist and defend itself against the Russian army, while doing its best to maintain some form of normality in daily life, has renewed interest in the topic of societal and institutional resilience. This report focuses on the resilience of education systems – an area of research that remains largely unexplored. Our research was carried out between December 2022 and January 2023, when we interviewed school principals, teachers and parents in the most seriously affected regions of Ukraine, as well as the parents of Ukrainian schoolchildren in Poland and Luxembourg.

Our general findings suggest that institutional resilience results from the simultaneous contributions of multiple actors. In the case of education, these actors are the teachers (the micro level); schools and school governing bodies, as well as local and regional authorities (the meso level); and national educational decision-makers (the macro level). These findings point in a similar direction to what have been referred to as **'multi-level resilience structures'** in Ukraine (Huss, 2022).

1. The Ministry of Education and Science of Ukraine, when issuing general guidelines after the start of the military invasion, granted more decision-making power to regional and local authorities. The interviews also showed that the **school governing structures** and local-level authorities **willingly assumed more responsibilities** at the start of the invasion, which allowed them to quickly develop plans and strategies that best corresponded to their actual circumstances, and to adjust them in timely manner. Waiting for centralised decisions on every aspect of education would have been very time-consuming and potentially ineffective, as the situations of schools and other educational institutions varied greatly – not only between regions, but within them. Research on resilience refers to this function as follows: **'...“resilience” (re-)directs attention to local resources and practices and away from ready-made blueprints'** (Wagner & Anholt, 2016).
2. **The role of teachers has remained crucial** throughout the war. Next to their required teaching duties, which were severely challenging, given the destruction of schools and infrastructure, many committed to offering extra hours for consulting e.g. for students studying abroad. In addition, they frequently offered psychological support to children and their families, volunteered in schools that were turned into shelters, and became **social multipliers** who contributed to the resilience of the society. In turn, this societal resilience greatly matters for the state, as **'...states are resilient when societies feel they are becoming better off and have hope in the future'** (High Representative of the Union for Foreign Affairs and Security Policy, 2016).
3. Interaction between school authorities and teachers was based both on the **increased autonomy of teachers and commitment to quality education**. Resilient schools created and extensively used multiple informal networks to seek solutions and offer feedback. Their success also depended on their capacity to foresee challenges and build workable plans in anticipation of difficulties – what is termed **'anticipatory governance'** (Huss, 2022).

4. The availability of ICT technologies, together with teachers' freedom to decide which tools (and which combinations of tools) best allowed them carry out their duties, played a crucial role in helping to restart the education process. However, the risks associated with the **vulnerability of technical infrastructure** should be pointed out. For any resilience-oriented system, preparing backup resources and emergency plans to restore the availability of electricity, internet access, etc. should be among the first actions taken. While the war in Ukraine is an extreme example, industrial and natural disasters could nevertheless have a potentially similar effect. Having access to **free and easily downloadable software and tools** to maintain communication and keep teaching channels open is crucial. The multifaceted role of communication, at the start of crisis situation in particular, is pivotal not only from an institutional, but from an individual point of view. For example, access to communication tools helped in quickly gathering information about the safety and whereabouts of children not only within, but also outside of Ukraine (Khvorostianov, 2023).
5. **International support and collaboration is crucial**, and will remain so during coming years dedicated to the recovery of Ukraine. The Ministry of Education and Science has successfully engaged with the international community in resolving challenges such as the organisation of the National Multi-Subject Test across 26 countries hosting Ukrainian displaced persons. At present, the Ministry of Education and Science is focusing on building stronger links with partners worldwide and in particular, with the European Union. This is evidenced by the intensified bilateral and multilateral cooperation agreements seen in recent months.

We conclude by suggesting that while the conditions of the war in Ukraine are not directly comparable to other hypothetical crisis situations (e.g. natural disasters), we strongly believe that the findings offered in in report are of value to policy actors and the academic community working towards building more resilient education systems around the globe.

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