Research article

The educational process of Ukrainian university students following the full-scale Russian invasion

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Abstract

On 24 February 2022, Russia launched a full-scale invasion of Ukraine, which is now in its second year. The invasion disrupted higher education institutions across the country and forced both staff and students to adapt to the new reality. This article focuses on the experiences of university students to understand how their educational process was impacted by the invasion. The research data comprise written testimonies from 81 students at the Taras Shevchenko National University of Kyiv. Thematic analysis of the data resulted in three themes: organisation of studies by the university; self-organisation of studies; and personal experiences. The article concludes that the invasion shifted the educational process online; however, students are often prevented from accessing the virtual classrooms due to constant air raids, power outages and connectivity issues with the internet, thus leading students towards more self-studying.

Keywords Ukraine; university; students; Russo-Ukrainian War; educational process

Introduction

On 20 February 2014, the Crimean Peninsula, a territory belonging to Ukraine, was invaded and subsequently annexed by Russian forces. This event marked the beginning of the Russo-Ukrainian War, characterised by the armed conflict in Eastern Ukraine, naval incidents and hybrid warfare. On 24 February 2022, Russia launched a full-scale invasion of Ukraine, causing social, economic, humanitarian and ecological crises in the country and beyond that continue to this day. The war and the invasion also had a dramatic impact on Ukrainian higher education institutions (HEIs). During the armed conflict that preceded the invasion, dozens of Ukrainian universities, located in the territories of the Donetsk and Luhansk regions (Eastern Ukraine), had to be evacuated, losing staff and students due to unfavourable living and working conditions (Furiv, 2018). Then came the Covid-19 pandemic, which affected the lives of staff and students, while interrupting school calendars, introducing virtual learning and changing workloads and communication channels (Limone et al., 2022). In the first months of the invasion, all educational institutions were closed, with universities resuming their work virtually in April (Lavrysh et al., 2022). Since then, universities have continued to function, although the educational process has been adapted to the reality of the war.

High risk of being hit by artillery and rocket fire does not stop the educational process (Sherman et al., 2022), and nor do electricity cuts, unstable internet and being on the battlefield. Ukrainian students remain determined to obtain an education, no matter what (Matviichuk et al., 2022). In this article, we discuss the impact that the full-scale invasion has had on Ukrainian higher education, specifically through the experiences of university students, who continue their studies despite the challenges of the war.

The decision to focus on students' experiences was motivated by the gap in scholarship on Ukrainian higher education following the invasion. Most researchers who turn towards students' perspectives focus exclusively on their mental health. Kurapov et al. (2023) report an increase in fear, substance abuse, stress, loneliness and burnout among university students. Limone et al. (2022) highlight the growing prevalence of stress and anxiety, calling for more support for students with mental health challenges. Xu et al. (2023) also discuss various mental health challenges faced by students, while noting the development of various productive coping strategies, such as problem-solving planning, social support and self-distraction. These studies showcase the horrific impact of the war on the mental well-being of students.

Despite these challenges, education continues: students complete courses, write theses and graduate. Our research contributes to the growing body of literature on university students' experience during wars and violent conflicts (Ben-Tsur, 2009) by highlighting the changes in the educational process and offering insight into the daily experiences of Ukrainian university students, based on students' testimonies. For this study, we collected 81 written accounts of bachelor's and master's degree students at the Taras Shevchenko National University of Kyiv, Ukraine, the workplace of the first author. Using qualitative thematic analysis (Braun and Clarke, 2022), we analysed the data, intending to answer our research question: How did the Russian invasion impact the educational process of Ukrainian university students?

Ukrainian higher education during the invasion

After becoming independent in 1991, Ukraine underwent political realignment that aimed to purge Soviet-era practices. This transformed higher education in the country, with the universities no longer being monodisciplinary institutions controlled by the Communist Party, with research being subject to the party's approval (Hladchenko et al., 2020). Despite the promoted changes and the emphasis on nation building, Ukrainian HEIs were still under the grip of post-Soviet managers, who were upholding their power and authority instead of promoting changes (Oleksiyenko, 2022). Despite ideological changes, the HEIs continued Soviet-era practices, being self-centred, self-serving institutions with intricate bureaucracy, institutional rigidity and low responsiveness to new challenges (Osipian, 2017).

Despite the proposed Ukrainisation (the wave of de-Sovietisation and nation-building sentiments), the ruling elites continued broadcasting the Russian language and propaganda, while oligarchs, who financed the HEIs and did business with Russia, exerted a tighter grip on the Ministry of Education, thus influencing textbook developments and avoiding narratives of Russian imperialism (Oleksiyenko, 2022). Even after the Revolution of Dignity in 2014, which sought to end Russian influence and the

beginning of the Russo-Ukrainian War, Ukrainian HEIs, and especially their rectors, were not quick to promote Ukrainisation and establish connections with the West. At the same time, most literature used at HEIs remained in Russian, with little effort to translate the texts into Ukrainian, while Ukrainian academics often worked, visited and collaborated with their Russian colleagues.

However, the invasion changed everything dramatically. Any mention of previous or potential relations with Russia became a source of pain, resentment and outrage; at the same time, due to migration, the rigid bureaucracy disintegrated, while connections with Western academics significantly increased (Oleksiyenko et al., 2023). The use of the Russian language is frowned upon, and university teachers are forced to search for sources in Ukrainian or English.

The invasion escalated Ukrainisation and relaunched the de-Sovietisation of Ukrainian society and HEIs; however, being a military conflict, it brought many great challenges. Milton and Barakat (2016) group challenges that wars and military conflicts bring into four themes: physical destruction; population displacement; war-related conditions; and low resilience of the sector. The destruction of facilities, the movement of students and staff due to army recruitment or emigration, war-related traumas, cuts to educational budgets and the high cost of maintaining universities during wartime (due to low financial support and a lack of skilled labour, technical inputs and sophisticated management) dramatically affect the quality and the affordability of higher education (Milton and Barakat, 2016).

In Afghanistan, which faced decades of war and oppression, universities were marked by destruction and decay, populated by staff and students who suffered from war-inflicted trauma, with many faculty members fleeing the war or being imprisoned and killed (Babury and Hayward, 2013). In Yemen, years of internal and external armed conflicts weakened the quality of higher education, forcing many to leave the country and find employment elsewhere (Muthanna and Sang, 2018). In Syria, universities witnessed increasing violence coming from both regime and opposition forces, with teachers emigrating and students suffering from mental health issues (Tozan, 2023).

Across different contexts, the violence of wars presents significant challenges to higher education on every level: administrative, pedagogical, economic, social and so on. From the moment the Russo-Ukrainian War started, Ukrainian HEIs began facing similar challenges. Furiv (2018) provides statistics that, following the annexation of Crimea and the armed conflict in Eastern Ukraine, 18 public HEIs, 2 private universities and 11 research institutes had to be evacuated, while thousands of students and staff, as well as educational and research infrastructure, remained in the occupied territories. The full-scale invasion increased the number of evacuated HEIs, among which was Berdyansk State Pedagogical University, a home university for Lopatina et al. (2023), who state that, due to the relocation, their university lost 13 per cent of its staff and 15 per cent of its students.

The displacement also changed how the universities presented themselves; by remaining in Ukraine and not in the occupied territories, the displaced universities demonstrated their loyalty to Ukraine, becoming not only educational institutions, but also weapons in the information war against Russian propaganda (Kolodiziev et al., 2023). However, this forced university professors who left the occupied territories to undergo an uneasy and challenging identity shift from place-bound to citizenship-bound conceptualisation (Oleksiyenko et al., 2021). Such identity crises are symbolic of prolonged and harmful consequences to people's mental health brought on by wars and military conflicts.

The harmful consequences to mental health are highlighted in Babak et al.'s (2022) study, which focuses on the mental health of students at the Department of Military Training of the Kharkiv National University of Internal Affairs. They look at two categories of students: those who remained in Kharkiv and those who were displaced. In the end, both categories suffer from severe mental health problems. Those who remained suffered from severe anxiety, depression and stress, while those who were displaced endured separation from families, worries for the safety of their relatives and adjustment difficulties to new places. Added to the high prevalence of stress and anxiety is the reduction of mental health support services caused by the Russo-Ukrainian War (Limone et al., 2022). Xu et al. (2023) describe how in such an environment, people adopt problem-focused coping strategies (for example, social support, problem-solving, self-distracting, time management) to combat psychological distress, anxiety, depression and insomnia.

The war had a dramatic impact on the universities' staff and scholars. Fiialka (2022) surveyed 690 Ukrainian scholars and concluded that the war prevented the majority of them (58.3 per cent, or 402 scholars) from completing previous scientific research, largely due to physiological discomfort, inability to plan and the lack of funding. Added to this is the destruction or physical damage to scientific institutions

across Ukraine, including the Taras Shevchenko National University, several buildings of which were significantly damaged during one of the Russian attacks in October 2022 (Kazantseva et al., 2022).

Lavrysh et al. (2022) collected data from 53 teachers and 10 administration representatives from the Faculty of Linguistics of the Igor Sikorsky Kyiv Polytechnic Institute and concluded that teachers noticed how the quality of their teaching deteriorated due to mental health disturbances, limited access to educational resources, constant air raids and sirens that interrupted virtual classes. Additionally, the teachers who participated in the study combined teaching with volunteering, support of displaced colleagues and dissemination of information about the war among the community of international educators (Lavrysh et al., 2022). Hence, the invasion has increased the teachers' activities by providing an opportunity to engage in more dialogue and collaboration with international communities at the cost of increased depression and anxiety.

Following the invasion, many researchers and students had to flee abroad, seeing education, in the words of Kirkegaard and Nat-George (2016), as a way out of violence and a ticket to life itself. Universities around the world welcomed Ukrainian academics fleeing the war (Morrice, 2022). However, not everyone was able to leave, as Nazarovets and Teixeira da Nazarovets and Teixeira da Silva (2022) point out by bringing attention to male researchers, who, due to their sex and the country's martial law, cannot leave Ukraine to continue research in other countries, while also being unable to continue their research inside Ukraine due to the negative effects of the invasion. Regarding male university students, Ukrainian law guarantees recruitment exceptions (Pro viyskovyy obovyazok i viyskovu sluzhbu, 1992); however, some choose to volunteer and fight for their country.

Overall, the invasion imposed various limitations on the activities of Ukrainian HEIs, including the reduced numbers of institutions, low levels of funding, academic mobility, and difficulties in providing quality training of specialists and methodological developments (Tsekhmister, 2022). With the full-scale invasion continuing with no signs of an approaching end, these issues become more and more challenging, requiring a great amount of effort from students, teachers and administration staff to overcome.

Following the invasion, education shifted online, while the Ministry of Education and Science of Ukraine recommended that universities continue delivering high-quality education, with teachers being prompted to check on students' safety during the virtual lectures, as well as to apply more liberal evaluation standards (Nikolaev et al., 2023). In a short time, Ukrainian HEIs shifted towards virtual learning, which, as Budnyk (2022) states, is an involuntary and necessary step to preserve education. Galynska and Bilous (2022) recognise both advantages (connecting with relocated students) and disadvantages (lower quality of instruction, loneliness and alienation of students) of virtual learning, stating that, despite its drawbacks, virtual learning is an irreplaceable norm amid the ongoing invasion. Hence, virtual learning is one of the key components of current Ukrainian higher education, which allows teachers to deliver classes to students scattered around the country and the world, but which fosters the feeling of exclusion among students.

The realities of the invasion complicate virtual learning. Air raids, bombing, shelling, power outages, lack of electronic devices and low-quality internet connections make it hard to access the virtual space (Vasilyeva and Kotenko, 2022). Ukraine has two types of air-raid alerts: localised and country-wide. If the air-raid alert starts during a virtual class, then the students who are in danger (if it is localised) or everyone (if it is country-wide) should immediately proceed to safety. The Ukrainian website https://air-alarms.in. ua provides statistics that in one year from the invasion (from 24 February 2022 to 24 February 2023), the alarms sounded 21,334 times throughout the country. The threat to life, as well as technological problems, significantly limit the availability and quality of virtual learning in Ukraine.

Overall, since the full-scale invasion, Ukrainian HEIs have faced many administrative, financial and infrastructural challenges, while university teachers and students experience mental health problems, depression, stress, anxiety and identity crises. Nevertheless, the educational process continues, largely due to the implementation of virtual learning, which simultaneously alienates and brings students and teachers together.

Methodology

This research focuses on students at the Taras Shevchenko National University of Kyiv, Ukraine; hence, this research is a case study, since it captures the complexities of experiences and attitudes within a

bounded unit (Hamilton and Corbett-Whittier, 2013). This case study is particularistic (focusing on a particular phenomenon), descriptive (providing a rich description of the phenomenon) and heuristic (illuminating the understanding of the phenomenon) (Merriam, 1998). The phenomenon focused on is university students' educational processes during the first year of the full-scale invasion. To analyse the impact that the invasion had on students' educational processes, and thus to describe and illuminate the phenomenon, we collected 81 written testimonies from students representing the Faculty of Economics, the Faculty of Philosophy, the Faculty of Psychology and the Educational and Scientific Institute of Philology at the university.

The participating students cover all the years of bachelor's (four years) and master's (two years) degrees; thus, this research includes students who began their education during the full-scale invasion and those who are approaching their graduation. Due to the virtual learning employed, the participating students came from various regions in Ukraine and beyond. Out of 81 participants, 69 were women, which is not surprising, considering that philology, psychology and economics are women-dominated disciplines, at least at the Taras Shevchenko National University. The data were collected by the first author between 15 January and 22 February 2023, thus illustrating a year of experiences from the beginning of the full-scale invasion.

All participants came from classes that were either taught or co-taught by the first author, who is employed at the Taras Shevchenko National University of Kyiv. Following Shaw (2008), who highlights the importance of informed consent in qualitative research, the students were provided with information about the context of the study and were guaranteed anonymity and data protection. The students who consented to participate in the study were not pressured into doing so. They could also contact the authors if they wished to retrieve their testimonies after submitting them.

The participants were provided with a prompt to describe their individual educational experiences during the time since the invasion. They were asked only one question: How has your educational experience changed since 24 February 2022? The students were free to discuss anything they felt was relevant and significant to share; there were no restrictions on topics, forms and style. The students were encouraged to be honest about their educational experiences, without fear of repercussions from other teachers or the faculties; hence, they could opt to anonymise their testimonies. For the purpose of this article, we decided to report the data pseudonymously, assigning a random number to each participant. The testimonies were digitally submitted to the first author, either by email or via other forms of personal communication.

This study adopts qualitative thematic analysis as its research method, which focuses on generating and describing manifest and latent ideas or themes within the data (Guest et al., 2012). The thematic analysis aims to identify and interpret key features of the data guided by the research question (Clarke et al., 2015). It supports synthesising individual experiences and generating a big-picture understanding. Nowell et al. (2017) describe six steps of rigorous and trustworthy thematic analysis, which were followed by the authors:

(1) familiarising yourself with your data
(2) generating initial codes
(3) searching for themes
(4) reviewing themes
(5) defining and naming themes
(6) producing the report.

The first author was responsible for generating initial codes, such as 'the lost time', 'desocialisation' and 'self-study'. Following that, both authors searched and reviewed, and eventually defined and named three themes.

Before proceeding to expand on the themes, it is necessary to acknowledge the limitations of this study. The first author teaches or co-teaches all the participants, and even though the students were encouraged to be honest and write without fear of repercussion, the existing hierarchical structures of higher education might have prevented students from being fully truthful. Moreover, this research features students who represent a single Ukrainian university with only a few faculties and one institute; hence, the study does not cover the learning experiences of students from other universities and disciplines outside the ones taught by the first author. Finally, this study represents only those students

who have continued their full-time studies and attend the lectures. Despite these limitations, which can be addressed by future research, this study provides some insight into students' educational experiences and into the effect that the Russian invasion has had on them.

Findings

Three themes emerged following the thematic analysis of the collected data: organisation of studies by the university; self-organisation of studies; and personal experiences. The first theme describes how students perceive the way their university and teachers reacted to the invasion and adapted the teaching process. The second theme focuses on how students themselves adapted to new conditions. The third theme describes students' personal experiences, feelings and actions. The following sections address each of these themes, with quotations from the students illustrating the statements. All the quotations are translated from the original Ukrainian into English by the authors.

Organisation of studies by the university

The participating students often reflect on the ways their university, or more specifically their teachers, reacted and adapted teaching processes following the full-scale invasion. Most of the students are thankful to teachers who are empathetic and provide support and understanding. Usually, Ukrainian students follow strict requirements for attendance (especially for seminars), are granted fixed deadlines for completed papers and homework and acquire a number of points for passing examinations. Several students are grateful to teachers who bypassed these strict requirements and adjusted them to accommodate students; they mention teachers who 'gave more time, longer deadlines, did not mark [the attendance], because they perfectly understood the situation' (Student 36). One adds: 'I want to say that most teachers make concessions: they allow assignments to be sent by email, if it is not possible to be present at the seminar and participate in a discussion, and [they also] extend the deadlines' (Student 65).

To provide some individual examples, Student 79, who lives in a village, mentions that sometimes they might have no electricity for two or three days; however, their teachers provide alternative ways to complete the lessons and extend the deadlines for homework. Student 8 recounted the day the invasion began, when one of their teachers, whom they describe as 'a wonderful person', was able to calm the students and collect their thoughts. Such acts reduce the stress that is usually associated with university studies, allowing students to worry less about deadlines and attendance.

Nevertheless, there are a few cases when the teachers refuse to adapt, continuing the teaching process as it was before the invasion. The students who mention such instances emphasise that there are a very small number of such teachers; however, their actions have a significant impact on students' motivation and well-being. Student 67 mentions teachers who ignore the air-raid alarms and refuse to pause the lecture. Student 1 notes that 'when they [their teachers] don't have electricity, the class is moved to another time, lectures are cancelled, or some alternatives are introduced. When a student doesn't have electricity, it will most likely be regarded as reluctance or an excuse.' Many students describe their efforts to access electricity and the internet, going to nearby settlements, looking for cafes and shops with Wi-Fi and/or electric generators, in addition to surrounding themselves with power banks. The students conclude that sometimes these efforts are unsuccessful, but the teachers do not believe that these efforts were even attempted, saying: 'if there is a will, there will be electricity' (Student 76).

Comments on virtual learning are plentiful in the students' responses. Most of the participating students had experienced virtual learning during the pandemic. They note that not much has changed, since they continue to experience the familiar issues of desocialisation and lack of direct contact with their classmates. Student 44 writes that, because of the pandemic and now the invasion, they do not know the faces of their classmates, since most keep their cameras turned off. Student 60 wishes for more communication with teachers, saying that virtual learning disconnects them from a pedagogue. The students also note how prolonged virtual learning increases the sense of longing for the university building and its facilities, especially the canteen. Several students reminisce about pancakes, cakes and lunches, hoping one day to return to taste 'the delicious food in our canteen' (Student 59).

Nevertheless, the biggest issue for students is not the virtual learning per se, but the constant air raids and power outages. Because of these, students often miss lectures, seminars and examinations. The students describe how they move location to find a connection to an online lecture and join in

from a grocery store, a cafe or the changing room of a gym. As Student 77 writes, 'passing tests under enemy's rocket fire while sitting in a bath' has become a new normal. Despite that, the students recognise that virtual learning is the only possible way of continuing education, especially after their university's building was damaged in an attack. In the case of refugees, virtual learning allows those who have migrated abroad to continue their studies. One such student (Student 14), who is currently living in the USA, recognises such benefits, although for them it is sometimes difficult to participate due to the time difference.

Overall, the teaching process affects students' well-being and motivation to continue education: they praise and thank teachers who show support, while acknowledging that not all teachers are willing to adapt their teaching processes to the war. The students also discuss the many difficulties of virtual learning coupled with constant air raids and power outages; however, they recognise that it is the only possible way of continuing education, while hoping to return to the university buildings.

Self-organisation of studies

The need for self-study directly arises from the inability to be present during the virtual classes because of air raids and power outages. To pass tests, complete final reports and finish homework, the students look for alternative ways of completing the lectures, thus studying topics on their own. As Student 11 writes: 'The biggest difficulties are caused by the constant blackouts and alarms, because of these, many classes are missed, and you have to study the materials yourself.'

Some students skip whole courses due to dramatic changes in their lives caused by the invasion. Student 81 describes a difficult situation in which they found themselves. Before the invasion, the student and their family lived in Kherson, a major city that the Russians attacked at the beginning of the invasion and then occupied until the Ukrainian forces regained control in autumn 2022. This student had to leave their home, which on its own was very challenging, and move to Kyiv, while their father volunteered to fight on the frontlines and their mother stayed at home looking after their grandparents. To live in Kyiv, the student had to work, which prevented them from continuing their education full-time. Nevertheless, the student completed their studies on their own and, eventually, passed all courses apart from two that they were asked to retake.

The continuous self-study speaks about determination to proceed with education. Several students emphasise the necessity of education for the future of Ukraine. 'Now it is our duty to support the educational rear and the information front against the Russians. We are working for our future,' writes Student 5. Student 62 says: 'I find strength and motivation to continue learning, to become better, to rebuild the country, to live a life for those who could not.' Finally, Student 65 summarises their feelings by writing: 'But who if not us will need the knowledge and skills to rebuild Ukraine? That is why we need to continue working, learning, developing in our own field and looking for strength and motivation.'

Meanwhile, several students admit that education for them has become a refuge and a form of escapism. Student 75 describes how they can hide behind 'the mountains of books' and prepare for a seminar, while their home town is being bombed. Student 19 writes that receiving support from the teachers and continuing with their education allows them to 'not go crazy'. The participants once again acknowledge the support from their teachers who immerse them in a topic and provide interesting information and activities for research, thus offering a distraction from the horrific reality of the war. Student 61 sums up: 'After a while, I started to get used to and even look for relief in studying, it is the part of my life that I can control, this stability reassured me and gave me the understanding that some power remains in my hands.' Thus, education not only distracts the students, but also revives and gives them strength. As Student 42 writes: 'Studying itself: completing the tasks, and later the seminars, assessments, exams brought and [still] brings me back to a full life.'

In addition to having teachers' support, the students also draw attention to the mutual support between themselves. Student 24 describes that since the beginning of the full-scale invasion, the students have stayed connected, worrying, supporting, offering help and communicating daily on social media. Student 51 acknowledges that one of the positive aspects of studying was the warm support that arose between the classmates. Student 75 writes that following 24 February, they thank 'those classmates, who have become very close to me and supported my faith and zest for life, I owe it to them that I still haven't lost my mind'.

Several students highlight the times when they chose to continue studying while facing direct danger. Student 59 confesses that it is difficult to catch up alone with all the classes and materials,

and that sometimes they remain in the virtual classroom despite the danger. Student 3 remembers how they were attending their favourite English-language class, when the air-raid alarm sounded, and they had to decide whether to go to the basement or to continue participating. However, not all students are like that; one states that they stopped worrying about low grades and went beyond their capabilities to connect to a virtual class, writing: 'I feel this kind of unconcern will help me not only to study normally in difficult conditions but also to preserve my nervous system' (Student 76).

Overall, the participating students feel motivated to pursue their education, sometimes even at the risk of going against their safety, since they see the importance of education in rebuilding Ukraine. With the support from teachers and fellow students, they persevere through the difficult times, which are often marked by isolated self-study.

Personal experiences

The first months of the invasion were incredibly hard on students, leaving many to wonder what to do next. Many students report feelings of despair, depression and anxiety about their future, and some of them confess to thinking about their studies as a lost time, doubting the quality of education that they can receive in such conditions. 'During the first months I did not want to do anything,' says Student 11. This statement was often present in other testimonies as well:

> When you wake up and read the news about the losses of the Ukrainian army, or the missile strikes on Ukraine, you don't want to get out of bed any more, you just want to fall asleep and wake up as if nothing happened, as if it was a terrible dream. (Student 63)

Students also write that they purposefully did not attend some classes, because they felt completely depressed and upset, and all they wanted was 'to curl up and sleep the whole day' (Student 17). When reflecting on their personal experiences and feelings, one student writes:

> For me, there was no spring, no summer, no autumn, only the 25th, 26th, … 350th, 351st, 352nd of February. It was difficult for me, like for many others, to cope with the feeling of complete helplessness, studying took a back seat. All thoughts were occupied with how to make people closest to me survive the war. (Student 75)

Despite the tough conditions caused by the invasion, some students tried to find optimism and to focus on the positive. Student 10 reports that they were able to master perfect time management skills since they have to juggle a lot of university tasks during the short time frame when electricity and the internet are available. Others report that their results had improved since the invasion. Student 74 explains: 'Personally, I associate this not only with my great interest in the subjects taught in this period, but also with the search for optimism in everything, a push that helped to break out of the emotional and everyday trap.'

The students also report on how the invasion shifted their priorities. Several participants note that they often neglect studies in favour of volunteer work. They have been helping people, sorting everything needed for the defenders and posting it to them, as well as supporting the victims. Student 35 says that they were so busy with volunteer work that their results dropped and, hence, lost their scholarship; however, the student has no regret in having done this.

Some of the students have left the country and became refugees. For our study, a few participants reported from the USA and Germany. Student 2 describes their feelings: 'It is difficult to live in two countries. You are a refugee. You have to assimilate somehow. You have to collect documents in folders … In the morning, you are a student at the university, and in the evening, you are a refugee in Germany attending the courses.'

The students conclude that eventually they adapt and get used to the new country, to limited communication with friends and groupmates and to studies from a different time zone, but they still find it challenging to concentrate when receiving terrible news from their home. Student 4 was not lucky enough to find a place to live or a host family and had to stay in different refugee camps across Europe before returning to Ukraine.

Although the participating students stated that they adapted to the conditions of the war, they had to experience incredibly tough situations that left them feeling lonely, depressed and anxious. The students coped with this in different ways: some searched for optimism, some became refugees and others continued pushing through. The invasion split their lives into before and after, forcing them to re-evaluate themselves and their attitudes to education.

Discussion

The full-scale invasion had a dramatic impact on Ukrainian higher education. The invasion shifted students' perspectives on their educational process and the value they place on it. Some see it as necessary for the development and rebuilding of future Ukraine; others search for optimism in it or see it as a form of escapism from the horrific realities. These attitudes influence motivation to study, as well as the educational process. Those who see education as a form of escapism report on eagerness to access favourite classes in order to get immersed in something else, rather than the war. Similar to Ben-Tsur (2009), we witness that despite ongoing and violent attacks, the desire for education and the pursuit of degrees remain strong among university students. However, our study also acknowledges those for whom education has lost the highest priority in favour of volunteering and supporting war efforts.

Following the short break during the first weeks of the invasion, universities resumed the educational process via virtual learning. Due to the Covid-19 pandemic and the resulting lockdowns, the students were already familiar with virtual learning practices; however, continuous air raids, power outages and problems with internet access, all caused by the invasion, prevented many from accessing the virtual classrooms.

Based on these findings, we conclude that, for Ukrainian university students, the educational process now includes searching for an internet connection, securing electric power and constantly having to navigate for safety. Student after student described various actions that they had to undertake to join classes, complete assignments and participate in examinations. Hence, the act of joining the class begins, for example, by charging power banks, finding a Wi-Fi spot wherever possible, making sure that their electronic devices work properly and then considering sheltering in case of an attack.

The increase in self-studying is the direct consequence of the inability to join virtual classes, which then also leads to feelings of isolation from teachers and peers. Despite that, some students find support from their teachers and classmates, connecting and growing closer with the latter thanks to social media. Our findings also highlight that there are a small number of teachers who refuse to support students in their self-studying by not providing alternative means for completing the courses. Here, we see one of the main challenges facing Ukrainian universities. The full-scale invasion changed the educational process for students, and they expect changes to the teaching process likewise; however, such changes depend on each pedagogue. Teachers have to continue delivering quality education and training experts in their fields, but it is challenging to do so when students do not participate in education for whatever reason.

It is important to remember that teachers themselves experience struggles similar to those of students. Suchikova et al. (2023) highlight the problems teachers face in accessing the virtual space to even begin lectures, while Lavrysh et al. (2022) describe how technical problems and air raids interrupt the teaching process, additionally emphasising the struggle to motivate students who experience tough situations, such as displacement and broken families. Ma et al. (2022) similarly recognise the stress that teachers face from teaching and completing all other required actions that come with being a teacher in a Ukrainian university, such as conducting research and publishing articles. On top of that, even after the invasion, teachers continue to receive low wages and little social support, while facing heavy workloads of paperwork (Nikolaev et al., 2023).

Our findings showcase that students seek help from teachers and actively praise those who cooperate, listen, understand and support them. However, in order to give support, teachers need to be supported themselves. These conclusions echo Dalia Ben-Tsur's (2009) study, which highlights the importance of a teacher's perspective and response to war for students, thus emphasising the need to offer support to teachers during violent times. Hence, we suggest that universities acknowledge and recognise teachers' needs and support them in teaching processes by reducing stress, loosening research requirements or decreasing workload, so that teachers can assist their students, thus becoming 'progressive university teachers' (Ma et al., 2022: 17), who can motivate, inspire and provide psychological support.

Conclusion

The thematic analysis of collected testimonies from students revealed that the Russian invasion greatly impacted their educational process. It forced universities to shift to virtual learning, while also preventing

access to virtual spaces due to constant attacks. In turn, this results in students often resorting to self-studying, which itself leads to alienation, desocialisation and, eventually, poor performance during tests and examinations. The war brings a great number of challenges to higher education, but, despite these, students find motivation and, with the help of their teachers and modern technology, continue their studies. With that, the educational process during the realities of modern wars and military conflicts extends beyond classrooms and universities to include the search for an internet connection and a safe space to complete one's work.

These results can be layered on a similar qualitative study that focuses on teachers' perspectives on the educational process, which is one of the possible directions for future research. Another direction could be to conduct a comparative study between different universities, especially those that had to relocate from the occupied territories. In conclusion, despite the horrific acts of Russian aggressors, higher education in Ukraine continues, and as Student 15 sums up: 'Ukrainians can get education in any conditions if they want.'

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Declarations and conflicts of interest

Research ethics statement

The authors conducted the research reported in this article in accordance with Taras Shevchenko National University of Kyiv Ethical Code standards.

Consent for publication statement

The authors declare that research participants' informed consent to publication of findings – including photos, videos and any personal or identifiable information – was secured prior to publication.

Conflicts of interest statement

The authors declare no conflicts of interest with this work. All efforts to sufficiently anonymise the authors during peer review of this article have been made. The authors declare no further conflicts with this article.

References

Babak, S.A., Vashchenko, I.V. and Krut, P.P. (2022) 'Psychological distress among students and cadets of universities in the war conditions'. *International Journal of Science Annals*, 5 (1–2), 20–9. [CrossRef]

Babury, M.O. and Hayward, F.M. (2013) 'A lifetime of trauma: Mental health challenges for higher education in a conflict environment in Afghanistan'. *Education Policy Analysis Archives*, 21 (70). [CrossRef]

Ben-Tsur, D. (2009) 'Academic studies amid violent conflict: A study of the impact of ongoing conflict on a student population'. *Globalisation, Societies and Education*, 7 (4), 457–72. [CrossRef]

Braun, V. and Clarke, V. (2022) *Thematic analysis: A practical guide*. London: Sage.

Budnyk, O. (2022) 'Education innovations: New wartime experience of Ukrainian universities'. *Journal for Educators, Teachers and Trainers*, 13 (5), 464–71. [CrossRef]

Clarke, V., Braun, V. and Hayfield, N. (2015) 'Thematic analysis'. In J.A. Smith (ed.), *Qualitative Psychology: A practical guide to research methods*. 3rd ed. London: Sage, 222–48.

Fiialka, S. (2022) 'Assessment of war effects on the publishing activity and scientific interests of Ukrainian scholars'. *Knowledge and Performance Management*, 6 (1), 27–37. [CrossRef]

Furiv, U. (2018) 'Ukrainian higher education in the time of armed conflict: Perspectives of crisis management'. Master's thesis, Tampere University, Tampere, Finland. Accessed 13 August 2023. https://trepo.tuni.fi/handle/10024/104008.

Galynska, O. and Bilous, S. (2022) 'Remote learning during the war: Challenges for higher education in Ukraine'. *International Science Journal of Education & Linguistics*, 1 (5), 1–6. [CrossRef]

Guest, G., MacQueen, K.M. and Namey, E.E. (2012) 'Introduction to applied thematic analysis'. In G. Guest, K.M. MacQueen and E.E. Namey (eds.), *Applied Thematic Analysis*. Thousand Oaks, CA: Sage, pp. 3–20. [CrossRef]

Hamilton, L. and Corbett-Whittier, C. (2013) *Using Case Study in Education Research*. London: Sage. [CrossRef]

Hladchenko, M., Dobbins, M. and Jungblut, J. (2020) 'Exploring change and stability in Ukrainian higher education and research: A historical analysis through multiple critical junctures'. *Higher Education Policy*, 33, 111–33. [CrossRef]

Kazantseva, L., Pisarevska, N. and Samoilenko, L. (2022) 'The war in Ukraine: Universities and their museums'. *Tartu Ülikooli ajaloo küsimusi*, 50, 97–118. [CrossRef]

Kirkegaard, A.M.Ø. and Nat-George, S.M.L.W. (2016) 'Fleeing through the globalised education system: The role of violence and conflict in international student migration'. *Globalisation, Societies and Education*, 14 (3), 390–402. [CrossRef]

Kolodiziev, O., Krupka, I., Kovalenko, V., Kolodizieva, T., Yatsenko, V. and Shcherbak, V. (2023) 'Social responsibility of higher education under martial law'. *Economic Studies*, 32 (1), 143–63. Accessed 13 August 2023. https://www.iki.bas.bg/Journals/EconomicStudies/2023/2023-1/09_Oleh-Kolodiziev.pdf.

Kurapov, A., Pavlenko, V., Drozdov, A., Bezliudna, V., Reznik, A. and Isralowitz, R. (2023) 'Toward an understanding of the Russian–Ukrainian war impact on university students and personnel'. *Journal of Loss and Trauma*, 28 (2), 167–74. [CrossRef]

Lavrysh, Y., Lytovchenko, I., Lukianenko, V. and Golub, T. (2022) 'Teaching during the wartime: Experience from Ukraine'. *Educational Philosophy and Theory*, 1–8. [CrossRef]

Limone, P., Toto, G.A. and Messina, G. (2022) 'Impact of the COVID-19 pandemic and the Russia–Ukraine war on stress and anxiety in students: A systematic review'. *Frontiers in Psychiatry*, 13, 1081013. [CrossRef] [PubMed]

Lopatina, H., Tsybuliak, N., Popova, A., Bohdanov, I. and Suchikova, Y. (2023) 'University without walls: Experience of Berdyansk State Pedagogical University during the war'. *Problems and Perspectives in Management*, 21 (2), 4–14. [CrossRef]

Ma, X., Gryshova, I., Koshkalda, I., Suska, A., Gryshova, R., Riasnianska, A. and Tupchii, O. (2022) 'Necessity of post-war renewal of university teachers' potential in terms of sustainable development in Ukraine'. *Sustainability*, 14 (19), 12598. [CrossRef]

Matviichuk, L., Ferilli, S. and Hnedko, N. (2022) 'Study of the organization and implementation of e-learning in wartime inside Ukraine'. *Future Internet*, 14 (10), 295. [CrossRef]

Merriam, S.B. (1998) *Case Study Research in Education: A qualitative approach*. 2nd ed. San Francisco: Jossey-Bass.

Milton, S. and Barakat, S. (2016) 'Higher education as the catalyst of recovery in conflict-affected societies'. *Globalisation, Societies and Education*, 14 (3), 403–21. [CrossRef]

Morrice, L. (2022) 'Will the war in Ukraine be a pivotal moment for refugee education in Europe?'. *International Journal of Lifelong Education*, 41 (3), 251–56. [CrossRef]

Muthanna, A. and Sang, G. (2018) 'Brain drain in higher education: Critical voices on teacher education in Yemen'. *London Review of Education*, 16 (2), 296–307. [CrossRef]

Nazarovets, M. and Teixeira da Silva, J.A. (2022) 'Scientific publishing sanctions in response to the Russo–Ukrainian War'. *Learned Publishing*, 35 (4), 658–80. [CrossRef]

Nikolaev, E., Riy, G. and Shemelinets, I. (2023) *Vyshcha osvita v Ukrayini: zminy cherez viynu*. [Higher education in Ukraine: Changes during the war]. Konrad Adenauer Stiftung. Accessed 13 August 2023. https://osvitanalityka.kubg.edu.ua/wp-content/uploads/2023/03/HigherEd-in-Times-of-War.pdf.

Nowell, L.S., Norris, J.M., White, D.E. and Moules, N.J. (2017) 'Thematic analysis: Striving to meet the trustworthiness criteria'. *International Journal of Qualitative Methods*, 16 (1), 1–13. [CrossRef]

Oleksiyenko, A. (2022) 'Academic freedom and intellectual dissent in post-soviet Ukraine'. *Higher Education Quarterly*, 76 (3), 580–94. [CrossRef]

Oleksiyenko, A., Shchepetylnykova, I. and Furiv, U. (2023) 'Internationalization of higher education in tumultuous times: Transformative powers and problems in embattled Ukraine'. *Higher Education Research & Development*, 42 (5), 1103–18. [CrossRef]

Oleksiyenko, A., Terepyshchyi, S., Gomilko, O. and Svyrydenko, D. (2021) '"What do you mean, you are a refugee in your own country?": Displaced scholars and identities in embattled Ukraine'. *European Journal of Higher Education*, 11 (2), 101–18. [CrossRef]

Osipian, A.L. (2017) 'University autonomy in Ukraine: Higher education corruption and the state'. *Communist and Post-Communist Studies*, 50 (3), 233–43. [CrossRef]

Pro viyskovyy obovyazok i viyskovu sluzhbu. (1992) 'About military duty and military service, N.27, 2232-XII. Accessed 13 August 2023. https://zakon.rada.gov.ua/laws/show/2232-12#Text.

Shaw, I. (2008) 'Ethics and the practice of qualitative research'. *Qualitative Social Work*, 7 (4), 400–14. [CrossRef]

Sherman, M., Puhovskiy, E., Kambalova, Y. and Kdyrova, I. (2022) 'The future of distance education in war or the education of the future (the Ukrainian case study)'. *Futurity Education*, 2 (3), 13–22. [CrossRef]

Suchikova, Y., Tsybuliak, N., Lopatina, H., Shevchenko, L. and Popov, A.I. (2023) 'Science in times of crisis: How does the war affect the efficiency of Ukrainian scientists?'. *Problems and Perspectives in Management*, 21 (1), 408–24. [CrossRef]

Tozan, O. (2023) 'The impact of the Syrian conflict on the higher education sector in Syria: A systematic review of literature'. *International Journal of Educational Research Open*, 4, 100221. [CrossRef]

Tsekhmister, Y. (2022) 'Education of the future: From post-war reconstruction to EU membership (Ukrainian case study)'. *Futurity Education*, 2 (2), 42–52. [CrossRef]

Vasilyeva, T. and Kotenko, S. (eds) (2022) *The Transformation of the Higher Education System in Ukraine: Proposals and perspectives*. Szczecin: Centre of Sociological Research.

Xu, W., Pavlova, I., Chen, X., Petrytsa, P., Graf-Vlachy, L. and Zhang, S.X. (2023) 'Mental health symptoms and coping strategies among Ukrainians during the Russia–Ukraine War in March 2022'. *International Journal of Social Psychiatry*, 69 (4), 1–10. [CrossRef] [PubMed]