DOI: 10.15587/978-617-8360-07-8.CH2

2 BREAKING DOWN BARRIERS: INCLUSIVENESS AND ACCESSIBILITY FOR SUSTAINABLE DEVELOPMENT

Iryna Glazkova, Svitlana Khatuntseva, Nesterenko Maryna,
Olha Hurenko, Yana Sychikova

ABSTRACT

This chapter of the monograph is devoted to discussing the current topic of inclusiveness and accessibility in modern higher education, emphasizing their key importance for the implementation of the Sustainable Development Goals. Through the prism of the experience of the academic community of Berdyansk State Pedagogical University, the educational and social barriers, caused by the war in Ukraine, which limit the full participation of students and teachers in the educational process, are considered. Tested adaptation strategies of the university, which helped to level the influence of the specified barriers in crisis conditions, are presented. The author team has developed strategic recommendations for building an inclusive barrier-free educational environment with an emphasis on the Sustainable Development Goals, which can be useful for representatives of the administration of higher education institutions, teachers who seek to master inclusive practices, politicians in the field of education working on reforms in this field and other stakeholders.

KEYWORDS

Ukraine, war, higher education, universities, accessibility, inclusiveness, barrier-free educational environment, Sustainable Development Goals, adaptation strategies.

2.1 INTRODUCTION

In the changing landscape of higher education, accessibility and inclusiveness have emerged as primary goals, aimed at removing barriers that have historically marginalized certain groups from the academic environment [1, 2]. This commitment to creating a more equitable educational ecosystem is closely aligned with the principles of the Sustainable Development Goals (SDGs), particularly Goal 4 "Quality Education", which advocates for inclusive and equitable quality education and promotes lifelong learning opportunities for all [3]. The pursuit of these ideals in higher education is not only about expanding access, but also about a comprehensive reassessment of teaching methodology, curricula, infrastructure, and support systems to meet diverse learning needs and experiences [4, 5].

The importance of inclusiveness and accessibility in higher education goes beyond the moral imperative of equality. It is also about using the entire spectrum of human potential and promoting a culture of innovation, critical thinking, and diversity of opinion [6, 7]. Universities that prioritize

these values are better equipped to address complex global challenges because they educate a generation of professionals who are diverse, adaptable, and able to think across cultural and disciplinary boundaries [8, 9].

In addition, mainstreaming accessibility and inclusiveness in higher education institutions directly contributes to the achievement of several other SDGs. For example, promoting gender equality (Goal 5) through equitable access to education [10], contributing to the reduction of inequality (Goal 10) by removing barriers for students with disabilities or from disadvantaged backgrounds [11], and promoting partnerships (Goal 17) through joint initiatives, aimed at improving educational access and quality throughout the world [12].

In this context, the narrative of higher education is one of transformation and responsibility. This reflects a shift towards recognizing and acting on the intrinsic value of diverse learning communities and the important role they play in fostering social, economic and environmental sustainability [13]. By rethinking higher education as a universally accessible and inclusive sphere, educational institutions not only contribute to the achievement of the SDGs, but also pave the way to a more sustainable, inclusive and educated global society [14].

However, the higher education landscape is riddled with many barriers that hinder access, participation, and success for many students. For example, structural barriers include the physical and organizational structures of educational institutions that may impede access for students with disabilities or those living in remote areas. Limited availability of means, resources, or transportation options can seriously affect students' ability to fully participate in the educational process [15].

The cost of higher education is a significant barrier for many students. Tuition fees, together with the associated costs of textbooks and accommodation, can exclude potential students from lower socio-economic backgrounds [16]. Financial barriers are further exacerbated in countries or regions without a robust scholarship or financial aid system.

Cultural norms, societal expectations, and language differences can also act as significant barriers. These may include stereotypes and biases related to gender, race, ethnicity or social class that affect student participation and achievement. In addition, students from minority groups or non-native speakers may face problems in navigating the cultural and linguistic landscape of higher education [17].

As digital platforms and resources become an increasingly integral part of higher education, the digital divide has become a critical barrier. Access to a reliable Internet connection, digital devices, and digital literacy skills are prerequisites for working with modern educational content, but not all students have equal access to these resources [18].

Mental health issues, stress, anxiety, and other psychological barriers can significantly affect students' ability to succeed academically. Academic performance pressures, along with personal and financial stressors, can interfere with students' academic performance and overall well-being [19].

In the context of sustainable development, overcoming these barriers is essential to achieving inclusive and equitable quality education for all. Each obstacle represents a complex problem,

the solution of which requires a multifaceted and individual approach. Innovative solutions, policy reforms, and collaborative efforts between governments, educational institutions, and communities are critical to addressing these barriers [20]. Thus, higher education can be a powerful tool for social change, economic development and environmental sustainability, aligning with the broader targets of the Sustainable Development Goals.

The war in Ukraine, which began in 2022, significantly changed the landscape of higher education, creating new barriers and strengthening existing ones [21, 22]. The economic effects of the conflict have placed a heavier financial burden on students and their families, who may now more than ever view education as a secondary concern to immediate survival and basic needs. This financial strain, combined with the destruction of infrastructure and loss of income due to displacement, further limits access to higher education [23].

The cultural and social fabric was torn apart by the war, which led to the loss of community cohesion, which is vital for educational activities [24]. The occupation of many territories and mass migration from them not only physically displaced communities, but also disrupted the support of social networks necessary for a favorable learning environment [25, 26]. In addition, it is difficult to overestimate the psychological effects of war on both students and teachers. Experiences of loss and displacement contribute to mental health problems that create significant barriers to effective learning and teaching [27, 28].

The physical destruction of the educational infrastructure and the relocation of a significant number of Ukrainian universities are direct obstacles to the continuation of education [29, 30]. In response to these challenges, a transition to online learning models was necessary, but this solution is associated with its own problems in the context of war [31, 32]. Frequent power outages, unreliable Internet access, and the destruction or unavailability of personal computing devices are a serious barrier to the educational environment [33, 34]. Students and teachers in occupied areas or areas close to the front line face particularly acute difficulties in accessing and providing education [35].

Moving from the broader context of problems and barriers in higher education, exacerbated by the war in Ukraine, this article narrows its focus to a specific and illustrative case: Berdyansk State Pedagogical University (BSPU). Working in the "University without Walls" format [36, 37], BSPU adapted to the new realities, imposed by the conflict, serving as evidence of the stability and innovation of the Ukrainian educational system. Through the introspection, carried out in six faculties, this study aims to examine the typical challenges and barriers [38, 39] that have been exacerbated by the war, as well as those that have re-emerged in these extraordinary circumstances. In addition, we try to highlight in the article strategies for overcoming barriers and the way to building an inclusive barrier-free environment.

This case study highlights the importance of flexible and innovative approaches to education delivery, which are critical to sustaining learning in crisis situations. The study contributes to the broader discourse on the resilience of educational systems in the face of unpredictable crises.

2.2 INSTITUTIONAL CONTEXT

Berdyansk State Pedagogical University was territorially located in the city of Berdyansk, Zaporizhzhia region. The university had 6 educational buildings, dormitories, and a health camp. Before the war, more than 5,000 students studied at the university. 250 teachers trained the applicants. The university had a powerful material and technical base, which was a guarantee of high quality education and advanced scientific research. On February 27, 2022, just three days after the beginning, the city of Berdyansk came under occupation. For some time, the activities of the university were suspended, students and teachers were sent on vacation. Subsequently, a decision was made to move the university to Zaporizhzhia. The occupation not only deprived the university of its physical infrastructure, but also provoked a mass exodus of university teachers and students from the city.

Faced with the complete loss of its material and technical base, BSPU embarked on radical transformations to continue its educational mission. Adopting the "University without Walls" model, it moved all operations to a remote format, effectively dispersing its community around the world (**Fig. 2.1**). This change was not without significant educational losses. After the move and the upheaval it caused, the university's student population dropped to 4,200 and its teaching staff down to 210.

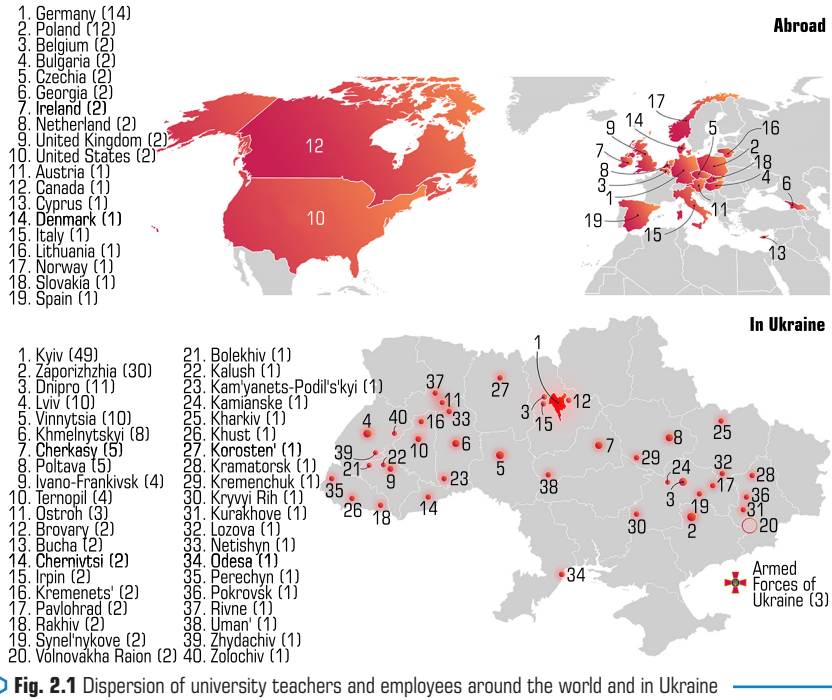

Fig. 2.1 Dispersion of university teachers and employees around the world and in Ukraine

Despite these significant losses, BSPU demonstrated remarkable resilience and adaptability in the face of adversity. The transition to a completely remote "University without Walls" format allowed the institution not only to maintain its activities, but also to reconsider its approach to education in the crisis. This new model fostered academic continuity and maintained a sense of community and continuity for both students and faculty, albeit in a dramatically changed landscape.

This institutional context lays the foundation for understanding how Berdyansk State Pedagogical University, in the face of war and displacement, dealt with the challenges of ensuring access to education, maintaining quality, and fostering an inclusive and barrier-free environment for its diverse community.

2.3 METHODOLOGY

2.3.1 STUDY DESIGN AND DATA COLLECTION

The methodology of this study was developed to obtain a comprehensive understanding of the challenges and barriers, faced by the academic community of Berdyansk State Pedagogical University (BSPU) in the context of the ongoing war in Ukraine. To achieve this, we developed a detailed questionnaire, designed to capture a wide range of experiences and strategies, used by university faculty and students to address these challenges. The questionnaire was designed to collect qualitative data on the nature of the barriers that arise in the educational process, the impact of these barriers on teaching and learning, and the innovative practices, adopted to overcome them.

In March 2024, two years after the start of the war, the questionnaire was distributed to six faculties of BSPU. Reflecting the decentralized "University Without Walls" model that the university adopted in response to the war, we did not designate individual respondents to complete the questionnaire. Instead, the decision about who will fill out the questionnaire was left to the faculties themselves. This approach allowed for flexibility while recognizing the diverse and fragmented nature of the university community. The faculties had the option of nominating a specific person, such as a head of department or representative, to complete the questionnaire or to complete it collectively as a group, thus including a wider range of perspectives and experiences.

The aim of this methodology was for the data collected to reflect the collective understanding and experience of each faculty, covering both the challenges, faced by students, and those faced by faculty. Without identifying a specific respondent, we aimed to encourage a holistic view that could capture the dynamic and multifaceted nature of barriers to education resulting from the conflict, as well as the adaptation strategies that have emerged across academic disciplines and communities at BSPU.

After distribution, we aimed to collect six completed questionnaires, one from each faculty, by the deadline. The answers became the basis for an analysis of how the university as a whole,

as well as its individual components, responded to the unprecedented challenges, posed by the war. This analysis aims to contribute not only to a deeper understanding of sustainability and innovation at BSPU, but also to offer valuable lessons for other educational institutions that are overcoming similar crises.

2.3.2 STRUCTURE OF THE QUESTIONNAIRE

The questionnaire was conceptualized to obtain both quantitative and qualitative data, facilitating a comprehensive analysis of the educational landscape under these unprecedented circumstances.

It was divided into two main segments. The initial segment used a quantitative approach, including Likert scale items to systematically measure perceptions and experiences. This segment was further divided into separate blocks, each of which was designed to examine specific aspects of the educational environment during the war.

The first block consisted of questions, designed to assess barriers, faced by teachers, with nine items, calibrated on a 6-point Likert scale ranging from 1 ("Strongly Disagree") to 6 ("Strongly Agree"). A parallel structure was applied for the next unit, which focused on barriers, faced by students, using the same Likert scale for uniformity and comparability of responses.

An additional block of statements was introduced to assess the faculty's perceived accessibility and inclusiveness using a similar 6-point Likert scale. This was followed by an evaluation of the effectiveness of the strategies and interventions, implemented by the teachers to navigate and mitigate the identified challenges, which were encapsulated in eight evaluation statements.

The final block of the quantitative segment asked the respondents to identify from a predetermined list of ten tasks the priorities that they considered most critical for adapting the educational process to modern realities. The respondents were asked to choose up to five statements from the 10 offered, which contributed to the ranking of the most pressing problems.

Moving on to the qualitative segment, the questionnaire included open-ended questions, designed to capture nuanced understandings and narratives. These questions asked the respondents to articulate new barriers, faced by faculty, additional challenges, faced by students, and strategies, implemented to promote support and sustainability in the academic community. In addition, the respondents were asked to outline the adaptation of teaching methodologies and learning experiences, the evolution of student engagement, mental health and well-being initiatives, and approaches to assessing student performance and ensuring academic integrity in online learning models. The qualitative segment also addressed efforts to foster a sense of community among disparate members of the university, mechanisms for collecting and implementing feedback, and strategies for preparing students for their future professional roles in an environment of ongoing uncertainty.

This methodological framework, through its dual quantitative and qualitative lenses, was developed to obtain a rich data set. The inclusion of Likert scale items facilitated standardized the

measurement of perceptions and attitudes, while open-ended questions provided a platform for expressing detailed experiences and innovative practices.

2.3.3 DATA PROCESSING

Processing of the data, collected through the questionnaire, included a methodical approach, distinguishing between quantitative and qualitative segments to ensure the accuracy and depth of the analysis.

Descriptive statistics were used for the quantitative segment of the questionnaire. This approach made it possible to generalize the data by mean values and standard deviation. Descriptive statistics provided a clear picture of the main trends and distribution of responses to various questions, contributing to the understanding of general perceptions and attitudes regarding the barriers, faced by participants in the educational process and the effectiveness of implemented strategies. The choice to abandon mathematical statistics in favor of descriptive analysis was driven by the goal of presenting a simple, interpretable overview of data suitable for identifying trends and patterns without the complexity of inferential statistical tests.

For the qualitative segment, thematic analysis was recognized as the most acceptable method of data processing. This approach involves a detailed and systematic examination of a data set to identify, analyze and report on patterns (themes) in the data. The thematic analysis began with a thorough process of familiarization with the data, in which responses to open-ended questions were read and re-read to gain an in-depth understanding of the content.

After reviewing the data, initial codes were generated by systematically identifying and annotating meaningful or recurring responses that provided insight into the barriers, obstacles, challenges, strategies, and adaptations, described by the respondents. Coding was done manually to ensure a detailed engagement with the data, allowing for the emergence of both expected themes (based on the structure of the questionnaire) and unexpected themes that emerged naturally from the respondents' responses.

The next step involved mapping the codes into potential themes and collecting all data relevant to each potential theme. This step was crucial in identifying the general patterns that would form the basis of the final report. The themes were then revised and refined to ensure that they accurately reflected the data set and conveyed a coherent understanding of the experiences and strategies of the BSPU community during the war. This involved a recursive process of revisiting the coded extracts and the entire data set to ensure that themes were well supported and meaningful.

The final stage of thematic analysis involved identifying and naming themes, offering a detailed analysis of each and linking them to the research questions and objectives. Quotations from the participants have been selectively included in the report to demonstrate themes and deepen the findings.

This combined approach of descriptive statistics for quantitative data and thematic analysis for qualitative data allowed for a comprehensive and in-depth study of barriers and adaptation

strategies of the BSPU faculties. This contributed to a balanced representation of both the measurable aspects of wartime educational experiences and the rich contextual narratives that underpin those experiences.

2.4 BARRIERS CAUSED BY THE WAR AND THE SEARCH FOR COPING STRATEGIES

2.4.1 BARRIERS FACED BY TEACHERS

A comprehensive analysis was conducted to identify and quantify the barriers, faced by faculty during the transition to an exclusively online learning model, which resulted from the dispersion of the university community due to the war. The study used a 6-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (6) to assess faculty consensus on various barriers. The results, including mean scores and standard deviations, provide valuable information about teachers' perceptions of these issues (**Table 2.1**).

The data show that the most significant obstacle, as teachers unanimously agreed, is "Increased administrative and technical burden, associated with managing online platforms and information tools", with a mean score of 6.0 and a standard deviation of 0.0. This unanimous agreement highlights the universal challenge of adapting to the technical demands of online education, highlighting the need for additional support and resources in this area.

It is followed by "Deterioration of the psychological and emotional state of students and teachers" as a serious problem with a mean score of 5.5 and a relatively low standard deviation of 0.55. This indicates a strong consensus among educators regarding the negative impact of the transition to the Internet on mental health, albeit with somewhat less variability in perception than in other areas.

Difficulties in maintaining student interaction in online format compared to traditional classes also emerged as a major concern, with a mean score of 5.17 and a standard deviation of 1.33. This shows a high level of agreement on the issue, albeit with moderate variability, indicating that while most teachers consider it an important issue, there are varying degrees of concern.

Security and privacy issues in online communications were recognized with a mean score of 5.0 and a standard deviation of 1.26, highlighting data protection and privacy concerns in digital education environments.

The analysis also found notable issues related to "Digital divide between students and faculty" with a mean score of 4.67 and a standard deviation of 1.03, indicating issues with internet access, digital literacy and equipment availability. Although significant, this challenge demonstrated moderate agreement and variability among the faculties.

Smaller but still notable problems included ones with conducting laboratory and practical components due to lack of physical resources, mean score 4.17 with a standard deviation of 0.98, and ones with maintaining a sense of community and university identity, mean score of 4.33 with

a standard deviation 0.52. These results indicate the recognition of difficulties in reproducing the practical and public aspects of education in a virtual environment.

Table 2.1 Quantitative analysis of barriers faced by university teachers during the war

Barriers, obstacles and problems	1	2	3	4	5	6	$\dot{x}$	s
Difficulties in maintaining the same level of interaction with students in online format compared to traditional classes			+	+		++++	5.17	1.33
Problems with conducting laboratory, practical components of courses due to lack of physical buildings and resources			+	++++		+	4.17	0.98
Increased administrative and technical workload, associated with managing online platforms and information tools						++++++	6	0
The digital divide between students and teachers, including problems with internet access, digital literacy and the availability of necessary equipment				++++		++	4.67	1.03
Deterioration of the psychological and emotional state of students and teachers					+++	+++	5.5	0.55
Online Communications Security and Privacy Issues			+	+	+	+++	5.0	1.26
Challenges related to building and maintaining a sense of community and university identity among students and staff who are physically isolated from each other				++++	++		4.33	0.52
Lack of resources for students with disabilities or special needs in online learning environments	++	+		+	+	+	3.17	2.14
Difficulty in adapting educational and methodological support of courses, teaching and assessment methods to online format	++	++			+	+	2.83	2.14

*Note: *1–6 points on the Likert scale; + – faculty response; $\dot{x}$ – average score; s – standard deviation*

The least pronounced barriers, according to teachers' answers, were "Lack of resources for students with disabilities or special needs in the online learning environment" and "Difficulties

with adapting educational and methodological support to online format" with average scores of 3.17 and 2.83. Accordingly, both are accompanied by the highest standard deviation of 2.14. This high variability indicates a wide range of faculty experiences and perceptions of these issues, suggesting that while these are significant challenges for some, they may not be viewed critically by others.

In summary, the transition to online education has presented a number of challenges for teachers, the most critical of which are administrative and technical burdens. The data reflect a strong consensus among faculty regarding the significant impact of these issues, although the variability in responses reflects varying levels of concern and faculty experience. Addressing these barriers, especially those with the highest mean scores and lowest variability, is critical to improving online learning for both students and faculty. Strategies to mitigate these challenges should prioritize technical support, mental health resources, and efforts to support engagement and community, adapting pedagogical approaches to the online environment.

The respondents gave more nuanced answers to an open question about new barriers, faced by university teachers during the war, in particular, two main clusters were highlighted – *informational-organizational* and *emotional-psychological barriers* (**Fig. 2.2**).

Unanimously, the respondents claimed that at the beginning of the war, the teachers' barriers were mainly related to the long-term lack of communication with the applicants and the complete lack of Internet access, which made it impossible to organize even asynchronous training, despite the fact that the educational and methodological support of the courses was adapted to study in online format.

The analysis of the answers allows us to state that there are barriers to the organization of classes both in synchronous and asynchronous mode. Thus, the respondents indicated that during the application of the synchronous mode of study, university teachers and students face a number of barriers that require attention and adaptation. One of the main challenges is the time constraints that arise due to the difference in students' time zones, which is especially relevant given that many students are abroad. There are also barriers of a technical nature, which include problems with the Internet connection, the absence of the necessary equipment and its malfunction, which prevents the conduct of classes in real time.

In addition, the limited opportunities for individual access create challenges for each student's personal interaction with the teacher during synchronous classes, making the process of asking questions and receiving comprehensive answers difficult due to the large number of participants. The barrier of low schedule flexibility makes it difficult for students to adjust to a fixed schedule of classes, conducted in real time, especially for those who work or have a work schedule in wartime, where students are forced to earn money to meet their needs.

The need to adapt practice-oriented sports disciplines to online learning and conducting classes in sports, special pedagogy, art and natural sciences without proper equipment and supplies also become important challenges. These problems require special attention to ensure a high-quality and effective educational process in the conditions of synchronous online education.

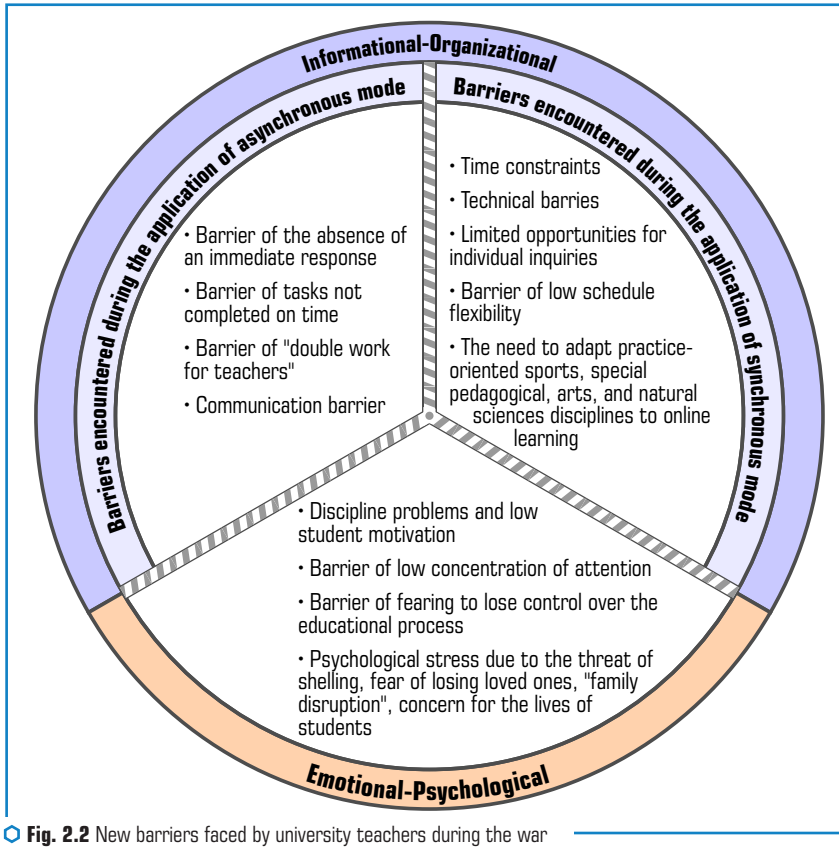

Fig. 2.2 New barriers faced by university teachers during the war

The respondents also noted that the use of asynchronous learning mode offers unique opportunities for flexibility and independent management of the learning process, but also introduces certain barriers for teachers and students. The analysis of faculty responses revealed key challenges facing the university community in asynchronous format.

One of the main problems is the barrier of lack of instant response, which arises due to delays in communication between students and teachers. Students trying to contact a teacher outside of the traditional academic schedule may feel frustrated by the lack of an immediate response.

Another significant problem is tasks not completed on time. Postponement of tasks until later becomes a common phenomenon, since there is no direct control from the teacher. This leads to an increase in the workload of teachers during the session and creates additional stress due to objective circumstances that may prevent students from submitting assignments on time.

The barrier of "double work of the teacher" also requires attention, since teachers spend much more time on one topic, providing support to students studying asynchronously. This increase in time costs is due to the need to answer questions, explain material and check tasks outside the main time of pairs.

Finally, the barrier of communication in asynchronous mode emphasizes the difficulties of creating an effective mechanism of interaction and exchange of information between participants of the educational process due to limitations in opportunities for joint communication.

These challenges require the university and its employees to develop and implement strategies that minimize the negative impact of asynchronous learning mode, promoting a more effective and immersive educational process.

The emotional and psychological barriers, faced by university teachers in the conditions of thewar and the transition to distance learning, require special attention and understanding. The identified problems cover a wide range of challenges affecting the effectiveness of the educational process and the emotional state of both teachers and students.

Discipline problems and low student motivation significantly complicate the educational process. The respondents reported a change in students' motivational priorities from the dominance of the motive of achievement to the motive of avoiding failure, where the smallest positive evaluation is considered satisfactory. This testifies to the significant emotional impact of the war on the motivational sphere of students.

The barrier of low concentration of attention is a serious problem arising from the lack of personal contact and interaction between students and teachers. Decreased concentration of attention, associated with limited interaction through the screen, creates additional difficulties for attracting and retaining the attention of students of higher education.

The fear of losing control over the educational process is noted among teachers who are concerned about the ability to effectively manage and adjust the educational process in the conditions of distance learning. This highlights the need to find new methods and approaches to support effective leadership and interaction in online format.

The teachers also note that they are in a state of constant psychological stress, exacerbated by the threat of shelling, fear of losing loved ones, and concern for the lives of students. These emotional challenges require the provision of adequate psychological support and resources to strengthen the emotional well-being of teaching staff.

Collectively, the identified emotional and psychological barriers emphasize the importance of a comprehensive approach to supporting teachers and students during the war and the transition to distance learning, with the aim of reducing the negative impact of these challenges on the educational process and the emotional well-being of participants in the educational process.

Therefore, the analysis of the answers of the respondents shows that during the war the organizational and informational barriers of the educational process significantly increased, starting from scheduling (due to the dispersion of both applicants and teachers around the world, and as a result – different time zones; as well as due to additional employment of all subjects of the

educational process, which is associated with the need for additional part-time work). In addition, on the one hand, the asynchronous learning mode allows students to be involved in the educational process as much as possible, but at the same time, it causes a greater load on teachers (the need to check completed tasks, additional correspondence with students, additional consultations). Since such a regime lasts more than two years, it leads to constant fatigue, psychological stress and, as a result, manifestations of the symptoms of professional burnout.

2.4.2 BARRIERS FACED BY STUDENTS

An examination of the barriers and challenges, faced by students in transitioning to online learning, caused by the dispersion of the university community due to the war, revealed profound trends and differences in perceptions of these challenges (**Table 2.2**).

The teaching staff found a consensus that economic difficulties were a significant barrier, with a mean score of 5.67 and the lowest among categories with a standard deviation of 0.47. This shows unanimous agreement among the faculties that the economic difficulties, caused by the war, have had a severe impact on students' ability to sustain their studies, reflecting the financial instability facing the student body.

Alongside this, both the psychological impact of the war and displacement and the challenges students with special needs face when accessing online support were highlighted, each receiving an average score of 5.5. The standard deviation for these categories was 0.76, indicating a high level of consensus among faculty on these questions, albeit with somewhat greater variability in responses compared to economic hardship. These results indicate the significant emotional burdens and additional barriers that vulnerable groups of students face during this transition.

Inability to form and maintain social connections in a virtual learning environment was another concern, with a mean score of 5.17 and a standard deviation of 0.75. This suggests considerable agreement on the challenges of virtual isolation, albeit with somewhat greater variability than economic and psychological barriers.

Moving to online learning increased concerns about academic integrity, as indicated by a mean score of 5.5 and a standard deviation of 0.76. This is in line with wider educational trends where digital learning environments are creating new challenges for maintaining academic standards.

Interestingly, difficulties in accessing reliable Internet and technological resources, although recognized as a serious problem with a mean score of 4.83, showed a higher standard deviation of 1.17. This suggests a wider range of educators' perceptions of the severity of technological barriers, highlighting the diverse contexts, in which students attempt to engage in online learning.

Concern about future career prospects and further education opportunities received a mean score of 4.5, combined with the highest standard deviation of 1.52 among the concerns assessed. This variability reflects uncertainty and diverse perspectives on the long-term impact of current educational challenges on students' futures.

Table 2.2 Quantitative analysis of barriers faced by university students during the war

Barriers, obstacles and problems	1	2	3	4	5	6	$\dot{x}$	s
Students faced significant challenges in accessing reliable Internet and technology resources, needed for online learning			+	++		+++	4.83	1.17
Psychological and emotional effects of the war and displacement negatively affected student performance and engagement				+	+	++++	5.5	0.76
Students faced difficulties in adapting to online learning	+++	++		+			1.83	0.98
Virtual space and lack of classroom learning prevents students from forming and maintaining social connections				++	+	+++	5.17	0.75
Students with special needs face additional barriers to accessing support in an online learning environment				+	++	+++	5.5	0.76
Economic difficulties, caused by the war, made it difficult for some students to continue their studies due to the need for financial resources for their studies					++	++++	5.67	0.47
Since the educational process takes place in online format, the problem of academic integrity is growing				+	+	++++	5.5	0.76
Violations of the daily routine and the lack of a structured learning environment contributed to a decrease in motivation and concentration among students		++	+++	+			2.83	0.75
Students express concern about the implications of current academic challenges for their future career prospects and further education opportunities		+		++		+++	4.5	1.52

*Note: *1–6 points on the Likert scale; + – faculty response; $\dot{x}$ – average score; s – standard deviation*

In contrast, difficulties when adapting to online learning and disruption of daily activities were perceived as less severe with mean scores of 1.83 and 2.83, respectively. Despite the lower mean scores, these areas still reflected notable challenges, particularly the latter, which points to broader challenges in maintaining engagement and motivation in an unstructured home learning environment.

This analysis explores the multifaceted barriers students face in online learning in war and displacement environments. Economic constraints, psychological stress and the struggle for

academic integrity emerge as major challenges. The range of responses, particularly regarding access to technology and the long-term implications for students' careers, underscores the complexity of these issues. These findings call for targeted interventions that address both the universal and nuanced needs of students, ensuring the continuity and quality of their educational journey.

Respondents' answers to an open question about the barriers students face during the war gave a more nuanced understanding. Among the main barriers, emotional-psychological, informational-organizational and financial ones prevail (**Fig. 2.3**), which is in good agreement with previous conclusions.

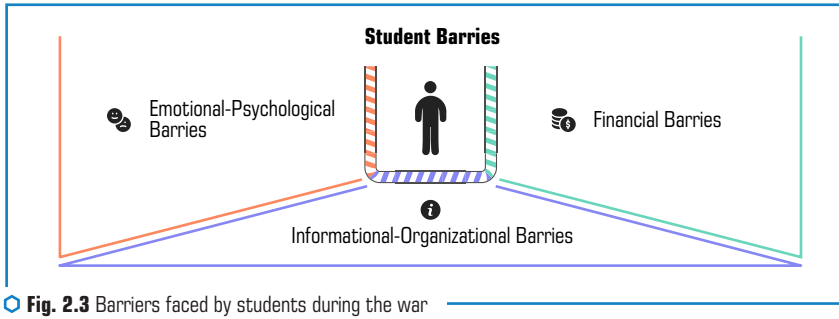

Fig. 2.3 Barriers faced by students during the war

Thus, the respondents indicated that emotional and psychological barriers are manifested in the fact that students experience psychological stress as a result of military events, have emotional instability, worry about threats to their own safety, about the loss of loved ones. Students also have fears for the fate of their families, worry that they will have to move to another city and adapt to new conditions, and are annoyed by the instability of the situation. This, in turn, leads to difficulties with concentration on a certain type of activity, deterioration of learning and loss of health in general.

The respondents note frustration as one of the types of emotional and psychological barriers, which is defined as a mental state of experiencing failure that occurs when there are real or imagined insurmountable obstacles on the way to some goal. In the process of learning, the state of frustration is accompanied by the feelings of:

– discouragement (if the student will not be able to master the material or due to slow progress);
– anger (annoyance due to mistakes or too fast pace of learning);
– apathy (indifference to classes, lack of motivation);
– fear (of making mistakes) and shame (feeling awkward at the moment of expression).

Informational and organizational barriers are manifested due to the distance of the student from the higher education institution. Since our HEI has been moved, the process of obtaining certain consultations becomes more difficult, the terms of production or restoration of certain

documents are extended; access to the necessary infrastructure for learning becomes difficult, the lack of an opportunity to read a "living" book in the library is also noted.

During times of the war, some students' resources may be limited, making it difficult to access necessary study materials, textbooks, computers, and other equipment. The respondents reported that the quality of the educational process can decrease due to the destruction of housing, loss of property and other economic challenges, which can distract from the educational process. As a result of relocation, students cannot gather at the same time in a certain place, communicate and exchange information with classmates and teachers, which can affect the learning process and understanding of the material.

Experiencing military events, the uncertainty of the situation leads to a loss of motivation in students. The faculty employees in their answers noted that some students lose interest in studies and future professional plans. 80 % of the applicants experienced financial difficulties due to the loss of part-time jobs or the loss of their parents' jobs, and as a result, problems with paying for education and housing appeared.

In addition, the analysis of the answers shows that the applicants who lived in the territory that was covered by hostilities from the first days of the war experienced psychological trauma, some of them closed themselves off, began to avoid communication with their group mates and the curator, some of them lost relatives, acquaintances, housing. Some applicants experience social isolation due to limited space, distance from family and friends, and fear for their own safety.

2.4.3 ACCESSIBILITY AND INCLUSIVENESS OF THE FACULTY

In assessing the accessibility and inclusiveness of teachers during the transition to the exclusively online learning model in the context of the ongoing war and displacement, we sought to find out the effectiveness of adaptation and intervention of teachers in response to the dangers of the new realities (**Table 2.3**).

The analysis revealed a strong consensus among educators on the effectiveness of adapting to digital platforms to ensure equitable access to learning materials and resources for all students, with a mean score of 5.67 and a standard deviation of 0.47. This assessment is reflected in the success of the faculties in creating an online community that facilitates social connections between geographically dispersed students and faculty, as well as in the effectiveness of communication channels that inform all members of the faculty community about schedules, news and available support services. These findings indicate uniform and strong agreement on the ability of educators to support learning continuity and community cohesion through digital means, suggesting minimal variability in these perceptions.

In addition, faculty efforts to provide psychological support and counseling services to students and staff were highly rated, with a mean score of 5.5 and a standard deviation of 0.76. Although this assessment indicates a slightly lower consensus compared to digital adaptation and

communication efforts, it is still a strong endorsement of the faculties' commitment to addressing mental health issues, caused by the war and displacement.

Table 2.3 Quantification of perceptions of faculty accessibility and inclusiveness

Statement	1	2	3	4	5	6	$\bar{x}$	s
The faculty has effectively adapted its digital platforms to ensure equitable access to learning materials and resources for all students, regardless of their location					++	++++	5.67	0.47
The faculty has been successful in creating an online community that fosters social connections between students and staff who are geographically diverse					++	++++	5.67	0.47
Adequate arrangements have been made to provide psychological support and counseling services to students and staff to help them cope with the challenges of war and displacement				+	++	+++	5.5	0.76
The faculty has created effective communication channels that inform all members of the faculty community about the schedule, news, available support services					++	++++	5.67	0.47
The faculty collaborates with overseas universities and organizations to expand educational resources, exchange opportunities and support students and staff in these challenging times	++	++		+	+		2.5	1.52

*Note: *1–6 points on the Likert scale; + – faculty response; $\bar{x}$ – average score; s – standard deviation*

In contrast, faculty collaboration with foreign universities and organizations to expand educational resources and support in these areas is far less effective, with a mean score of 2.5 and the highest standard deviation of 1.52 among the assessed areas. This significant variability in responses and the markedly lower average score highlight a critical area of concern, pointing to a perceived inadequacy in the use of international partnerships to enhance educational resources and opportunities for students and staff.

This analysis highlights the significant achievements of the faculties in adapting to the demands of online education and maintaining a sense of community and support amid the challenges of the war and displacement. However, it also identifies a significant gap in international cooperation and resource expansion, highlighting an area in need of immediate attention and improvement. Addressing this gap is critical to increasing faculty capacity to comprehensively and effectively support their members in navigating the complexities of the current educational environment.

2.4.4 COPING STRATEGIES

When assessing the effectiveness of strategies and measures, implemented by the faculties for the transition to online learning in the context of the war and displacement, the analysis based on the responses of teachers shows a comprehensive adaptation to the digital education model (**Table 2.4**).

Table 2.4 Quantitative analysis of implemented strategies to overcome barriers

Statement	1	2	3	4	5	6	$\dot{x}$	s
Our faculty has successfully transitioned to online learning platforms, ensuring that all courses are accessible to students regardless of their geographic location					++	++++	5.67	0.47
We have implemented flexible scheduling and asynchronous learning options to accommodate students in different time zones and with different Internet access				+	++	+++	5.5	0.76
The faculty has provided additional training and resources for both students and staff to improve digital literacy and facilitate the effective use of online learning tools				+	++	+++	5.5	0.76
Special attention is paid to students with special needs, providing access to educational materials and platforms, as well as creating the necessary conditions				+++		+++	5.0	1.0
Psychological support services, including counseling and mental health resources, have been made available to students and staff to deal with the emotional impact of the current situation					++	++++	5.67	0.47
The faculty has implemented programs to support and bring together students and staff, such as virtual meetings, mentoring programs, online social events, etc.					++	++++	5.67	0.47
Efforts have been made to maintain academic rigor and integrity by adapting assessment methods appropriate for online learning					++	++++	5.67	0.47
The faculty collaborates with other universities and organizations to improve educational resources and opportunities for students			+	++	+	++	4.67	1.11

*Note: *1–6 points on the Likert scale; + – faculty response; $\dot{x}$ – average score; s – standard deviation*

Faculty migration to online learning platforms was highly rated with a mean score of 5.67 and a standard deviation of 0.47, indicating significant agreement regarding the successful migration of courses to accessible online formats for students regardless of their geographic location. Similarly, the implementation of flexible scheduling and asynchronous learning options received a mean score of 5.5 with a standard deviation of 0.76, highlighting faculty efforts to meet the diverse needs of students in different time zones and different levels of Internet access.

Additional training and resources to improve digital literacy among students and staff were also rated well, with the same mean score and standard deviation as scheduling flexibility.

Faculty commitment to inclusiveness, particularly for students with special needs, was recognized with a mean score of 5.0 and a higher standard deviation of 1.0. This relatively high variability indicates different experiences or perceptions of the adequacy of support for this group, highlighting an area that could benefit from additional attention and uniform implementation.

Psychological support services were highlighted as a strong area of faculty response with a mean score of 5.67 and a standard deviation of 0.47. This, along with similar rankings for programs aimed at fostering community through virtual meetings, mentoring, and social events, underscores the strong recognition of the emotional and social challenges surrounding the current situation and the proactive efforts by faculty to address them.

Faculty efforts to maintain academic rigor and integrity in online format were also highly rated, with a mean score of 5.67 and a standard deviation of 0.47, reflecting a consensus regarding the effectiveness of adapted assessment methods suitable for online learning.

However, collaboration with other universities and organizations to improve educational resources and opportunities was rated lower with a mean score of 4.67 and a standard deviation of 1.11. This shows that, despite the general understanding of the need to develop such cooperation, there are notable differences in perception, possibly indicating areas for development of external partnerships and resource sharing.

In summary, the adaptation of university the faculties to the challenges of online education during the crisis has been generally effective, particularly in the transition to digital platforms, providing psychological support and maintaining community engagement and academic standards. However, the variability, seen in support for students with special needs and in external collaboration, highlights areas where further efforts could improve the overall effectiveness of faculty strategies. These findings not only demonstrate the strengths of faculty responses to unprecedented challenges, but also guide future improvements to ensure an inclusive, supportive, and barrier-free academic environment.

2.4.5 PROBLEMS OF ADAPTATION

Evaluating the numerous challenges, faced during the adaptation of the educational process to current realities, we asked the faculties to identify the most acute problems from the provided

list. The responses provided highlight key problematic issues and shed light on the priorities and perceptions of the faculties regarding these issues (**Table 2.5**).

Table 2.5 Problems of adaptation when overcoming barriers

Problem	Number of responses
Support of effective communication and feedback between students and teachers	6
Ensuring equal access for students with special needs	3
Adaptation of practical or laboratory classes to online format	2
Management of increased workload and stress among scientific and pedagogical staff due to distance and remote mode of work	5
Maintaining a sense of community and university identity in the absence of offline communication	4
Bridging the digital divide and providing all students with the necessary hardware and software	1
Internet access for students and teachers	2
Personnel losses among academic and non-academic personnel	3
Problems of physical security and psychological impact of the war on students and teachers	2
Educational losses due to frequent air alerts	2

The main challenge as unanimously stated by all six faculties, centers around maintaining effective communication and feedback between students and staff. This unanimous agreement underscores the critical importance of maintaining open and effective communication channels in the virtual learning environment, suggesting that this is paramount to the successful continuation of the learning process.

Overcoming the increased workload and stress of the scientific and pedagogical staff due to the remote working modes of five faculties was identified as a significant problem. This shows the general recognition that the shift to online learning and the ongoing war have harmed staff welfare and workload management.

Four faculties emphasized the preservation of a sense of community and university identity in the absence of offline communication, reflecting concerns about the erosion of social ties and collective identity in the face of the transition to digital interactions. This demonstrates a deep awareness of the importance of community cohesion to the overall educational experience.

Concerns about ensuring equitable access for students with special needs were noted by three faculties, highlighting the challenges, faced in providing equitable opportunities for online learning. Similarly, losses among academic and non-academic staff were also noted in three faculties, indicating the devastating impact of the war on the university's human resources.

Interestingly, the adaptation of practical or laboratory classes to online format, although recognized as a problem, received relatively fewer responses, with only two faculties recognizing it as one of the most serious issues. This, together with the equal number of responses regarding internet access for students and teachers, the psychological impact of the war and the loss of learning due to frequent air alerts, indicates that these areas are perceived as important but not as relevant as communication, workload management, and maintenance of the community.

It is noteworthy that bridging the digital divide and providing all students with the necessary hardware and software was identified as a major concern by only one faculty, suggesting that despite the recognition of the issue, it may not be perceived as critical as others in the current context or the faculties are quick in finding ways to solve these problems.

These findings highlight the multifaceted challenges facing university departments in adapting to the realities of online education in wartime. The emphasis on communication, workload management, and community cohesion reflects a deep understanding of the foundational elements necessary to sustain the educational mission in these unprecedented environments. However, the diversity of responses also highlights the heterogeneous impact of these challenges on different areas of the educational process, emphasizing the need for individualized strategies to meet the unique needs of different stakeholders in the university community.

2.5 CASES OF THE BEST STRATEGIES FOR OVERCOMING BARRIERS AND CREATING A BARRIER-FREE INCLUSIVE ENVIRONMENT

2.5.1 STRATEGIES FOR OVERCOMING BARRIERS

In their answers, the respondents shared specific examples of strategies that were implemented at the faculties to support students and teachers who faced difficulties and threats due to the war to overcome existing barriers (**Fig. 2.4**).

From the first days of the war, for the coordination and coherence of actions and information, the following were created in messengers: faculty groups, ones of deanery employees and heads, curators, elders. So, we can talk about *the communication and information strategy* that allows us to keep in touch with all subjects of the educational process even today.

Another strategy that has been successfully implemented in the university faculties, which helps to overcome barriers, primarily psychological and social isolation, is *the strategy of involving* both teachers and students *in public activity*. It was implemented by collecting food and clothing for those who needed it, especially in the first months of the war; production of trench candles within the framework of "Warm a soldier" actions; collection of goodies and Christmas and Easter gifts for children of orphanages).

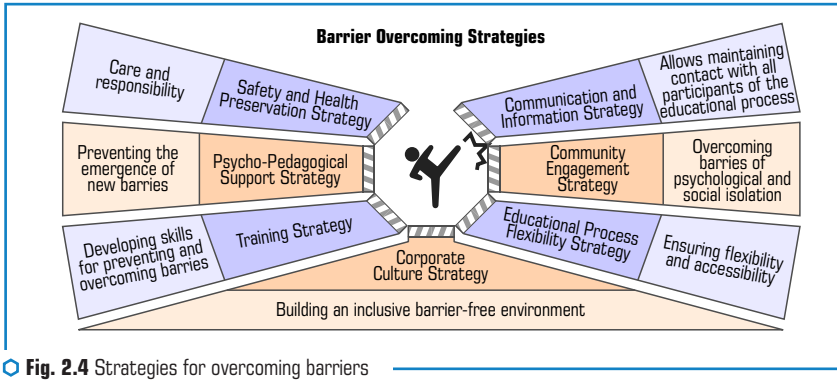

Fig. 2.4 Strategies for overcoming barriers

The strategy of psychological and pedagogical support, implemented by the university during the war and the transition to distance learning, played a key role in ensuring the stability and adaptability of the educational process. An important aspect of this strategy was the creation of an effective communication system at all levels of the university's administration, including the rectorate, deans, heads of departments, which contributed to timely identification and response to possible challenges and barriers.

The regular contact of the dean's office with each teacher individually, as well as the organization of curatorial hours, which were held on a regular basis, made it possible to maintain continuous contact with students. This 24/7 communication model ensured students felt supported and included despite their physical isolation.

Considerable attention was given to psychological support and counseling to help students and teachers cope with the stress and anxiety, caused by the war. Simple questions about well-being and the opportunity to share problems ("How are you?", "Are you all right?", "How can I help you?", "What are your problems today?") contributed to the creation of an atmosphere of trust and cooperation, strengthening emotional connections between participants of the educational process. Scheduled individual consultations and group sessions provided additional opportunities for discussing educational issues, solving personal problems, and developing strategies for adapting to new learning and living conditions. Thus, the implemented psychological and pedagogical support became the foundation for ensuring the effectiveness of the educational process in crisis conditions, helping to maintain academic stability, promote the psychological well-being of students and teachers, and maintain a high level of motivation and mutual understanding in the university community.

The respondents noted that *the psychological and pedagogical support* from the curators of academic groups and deputy deans for educational work was especially valuable for students. It included help (both physical and psychological), empathic listening, participation in communication.

This strategy has *a preventive nature of support*, which aims to identify the causes of barriers in order to prevent or overcome them. That is, anticipating events, the mentor seems to insure the one he/she supports. The operational nature of support is the supporter's response to a (often silent) request for help. Empathic listening is listening, in which the focus of attention is consciously directed to the personality of the speaker, it helps to feel emotional comfort and safety and thus helps to prevent barriers. The task of the listener is to hear the disturbing notes in the voice of the speaker. Participating in communication means showing interest and commitment by those who teach through plastic-mimic expressiveness.

The respondents noted that *the training strategy* was also effective. Its purpose was to form the skills of preventing and overcoming barriers; formation of teachers' ability to reflect on their own behavior and the behavior of others; correction of the personal qualities of the participants, which are certain barriers that reduce the effectiveness of the activity.

The faculties have chosen *the corporate culture strategy* as the leading direction of activity, where every teacher and applicant can address a question to the management and receive an answer. A democratic style of management, friendly relations, trust, concern for each subject of educational activity, nurturing of universal values was introduced at the faculties and departments. In social networks, there are posts by applicants and graduates who speak favorably about the nature of human relations at the faculties, the moral and psychological climate, interesting and meaningful communication, the opportunity for self-expression and self-improvement.

The strategy of flexibility of the educational process provided not only a flexible schedule of classes, but also the possibility of using video recordings of lectures. This strategy was implemented at the faculties with the help of digital communication and collaboration technologies (Google Forms; interactive whiteboards: Padlet, Jamboard, Conceptboard, Miro; use of software and digital tools (Google applications, Moodle). The faculties provided access to online resources, such as webinars, trainings and recommendations on stress management and mental health support. In particular, today the faculties operate student circles: "Formation of health culture among student youth", "Stress: how to avoid?", "Modern health technologies".

The safety and health strategy was implemented through the implementation of safety measures for students and teachers, including appropriate advice and instructions on how to behave in dangerous situations, providing updated and reliable information about the situation in the country and possible risks and safety measures.

Therefore, these strategies are aimed at creating a barrier-free and inclusive educational environment where each participant in the process feels supported, understood and has the opportunity to express him/herself and develop. The integration of these strategies into the daily activities of the university allowed not only to adapt to the complex conditions of modern times, but also to support the morale and academic commitment of both students and teachers.

Each of these strategies reflects a deep understanding of the needs and challenges facing the educational community and demonstrates the university's commitment to creating a supportive, flexible and safe learning environment. These approaches not only contribute to overcoming current

barriers, but also lay the foundation for the development of a strong, cohesive and sustainable academic community, ready to face future challenges.

2.5.2 ADAPTATION OF TEACHING METHODS

When asked about the adaptation of teaching methods and learning experience, the respondents noted that the educational process used methods, aimed at:

– change in thinking and attitude to learning;
– creation of a safe and supportive educational environment;
– setting real learning goals;
– digital methods;
– methods of developing willpower.

These methods provided communication, cooperation, the opportunity to express one's opinion and be heard, despite the fact that everyone is in different locations or experiencing social isolation.

2.5.2.1 METHODS OF CHANGING THINKING AND ATTITUDE TO LEARNING

One of the effective approaches, shared by the respondents, was the implementation of methods of changing thinking and attitudes towards learning. The main idea is to rethink the perception of mistakes from a negative phenomenon into an important element of the educational process, which opens up new opportunities for development and self-improvement.

A concrete example of the application of this approach was the use of the "Stop, Think, Choose" technique. This technique encourages students to make conscious decisions in moments of emotional tension, which allows them to more effectively manage their own reactions and contributes to a deeper assimilation of the educational material.

One of the respondents shared a case study from educational practice:

"During an online English lesson, a student makes a mistake in an answer, to which the teacher comments. The moment a student feels emotional discomfort from his mistake, he stops to evaluate his feelings, instead of giving vent to irritation. Next, the student analyzes the situation, realizing that a mistake is not a disaster, but on the contrary, a chance to learn something new. With this understanding, he decides to turn to the teacher with a request to explain the error to him in more detail. Thus, the student not only learns the educational material more deeply, but also develops his own willpower and emotional stability".

This experience demonstrates how a change in attitude toward mistakes and a focus on the learning process, not just on its outcome, can become a solid foundation for the development of students'

competencies and self-esteem. It also emphasizes the importance of adapting teaching methods to new realities, providing support and understanding to each participant in the educational process.

2.5.2.2 CREATING A SAFE AND BARRIER-FREE EDUCATIONAL ENVIRONMENT

In response to the heightened emotional and psychological risks, associated with wartime and distance learning, the faculties have implemented a comprehensive approach to creating a safe and supportive educational environment. This approach included several key stages, aimed at creating an atmosphere of trust, mutual respect and emotional support among all participants in the educational process.

The first step was to assess the current state of the educational environment to identify existing risks and vulnerabilities. On the basis of this assessment, measures, aimed at increasing awareness of the importance of psychological safety among students and teachers have been developed. To provide a clear framework for interaction and behavior, expectations and rules that promote psychological safety have been established. This included the creation of a code of conduct that took into account the needs and characteristics of the participants in the educational process. The educational process was organized in such a way as to facilitate the learning and development of all participants, with special attention to their emotional state. The use of methods, such as "ice breaker", "team-building", "warm-up" and "energizer", made it possible to create a friendly and cohesive learning environment. These methods have helped to energize students, build team spirit, and reduce social isolation, helping students feel part of the community.

Stimulating feedback and recognizing the vulnerability of participants in the educational process became an important part of the strategy. Teachers and curators actively encouraged students to communicate openly, express their thoughts and emotions, which contributed to the formation of a positive psychological climate and strengthening of relationships based on trust and mutual understanding.

Thus, the use of these methods of adaptation and support in the conditions of distance learning has become an effective way not only to overcome the barriers, associated with the distance learning format, but also to provide emotional support and create a favorable environment for all participants of the educational process.

Almost unanimously, the teachers indicated that they tried more than ever to provide *a favorable microclimate* in the classes, which contributed to the prevention of barriers in communication (especially with the one who teaches), prevented the emergence of a feeling of self-doubt, fear of negative evaluation judgments of the one who teaches.

The respondents noted that the teachers used *the method of direct suggestion* in the classes, which instilled in the students confidence in their own abilities and strengths. For example: "It's not that difficult", "You can do it", "With your abilities it won't be difficult to do it". At the same time, they assumed that belief in one's own strength, in the ability to successfully overcome a barrier,

is an important motivational factor, and confidence in one's own abilities is an attitude towards one's own abilities. So, the greater the confidence in one's own abilities to overcome the barrier, the more persistent the individual is in his/her actions.

The reception of *verbal persuasion*, combined with "*direct*" evidence that the individual can do it was also effective ("You noticed that now you structure the educational material much better, and, accordingly, make meaningful conclusions when writing works", "I am very glad that you have learned to analyze and use theoretical material").

Encouragement and reassurance are techniques for confirming that the teacher wants to accept the student's thoughts and feelings, regardless of what they are: "Yes, I understand your condition", "That's good to hear", "Keep going, keep going", "That's interesting", and so on. These remarks contributed to the beginning of the dialogue, reduced the students' tension.

2.5.2.3 METHODS OF SETTING REAL LEARNING GOALS

The adaptation of teaching methods to the conditions of distance learning at the university involved the implementation of the SMART-goal setting approach, which contributed to the formation of a more purposeful and effective educational process. Teachers and students worked together to establish specific, measurable, achievable, realistic and time-bound goals, which significantly increased student motivation and ensured their active participation in the learning process.

The use of the "Pomodoro" method became the answer to the need to organize effective study time. Dividing the work process into short periods with well-defined breaks helped the students to maintain a high level of concentration and reduce the frustration of being overwhelmed. This approach not only increased productivity, but also ensured better assimilation of educational material.

Digital methods, such as the use of knowledge maps and collaborative applications, have also been implemented to make the learning process dynamic and interactive. For example, the use of the Linoit application allowed students and teachers to create joint virtual boards, on which stickers with tasks, materials and comments could be placed, which contributed to a better organization of educational material and the involvement of students in active participation in the educational process.

Thus, the adaptation of teaching methods through the use of SMART-goals, the "Pomodoro" method and the integration of digital technologies made it possible to create a more effective, flexible and supportive educational environment, in which every student could realize his/her potential even in the conditions of distance learning and social challenges, connected with the war.

The use of methods for the development of willpower has become an important aspect of supporting students and teachers in the conditions of distance learning and new realities. Respondents shared their experiences of implementing a variety of exercises that promote focus, patience, self-confidence, and persistence, which are key to managing frustration and overcoming educational challenges.

For example, an instructor in a critical thinking course decided to integrate anticipation games and exercises into online lessons. One of these activities was the game "Who can name the words on a certain topic the longest?", which not only contributed to the development of students' patience and attention, but also ensured a high level of engagement and motivation for learning.

Self-monitoring exercises, such as "Make a list of words on a given topic in 2 minutes", allowed students to practice focus and responsibility for their own learning outcomes. This exercise taught them to plan their time and use it effectively to achieve their goals.

Goal-setting methods, such as creating dream maps, helped students visualize their professional goals and aspirations, building motivation to achieve them. This approach inspired students to look to the future with optimism and confidence in their abilities.

Gratitude journaling and positive self-suggestion have become effective tools for improving students' self-esteem and emotional well-being. These practices helped them focus on the positive aspects of their lives and studies, reducing their stress and anxiety levels. Also, the involvement of students in volunteer projects and helping others contributed to the development of their social responsibility and empathy, which are important components of willpower.

These methods and approaches to the development of strong-willed qualities have become an integral part of the adaptation of the educational process to new challenges, demonstrating their significance for supporting the stability and success of students in learning and life.

2.5.3 STRATEGIES FOR INVOLVING STUDENTS IN PUBLIC EVENTS

In response to the question of *strategies for involving* students in classes and cultural events, *the strategy of forming student associations and initiatives* was noted, when events take place both at the faculty and university level at the initiative of students and, accordingly, with their participation. The participation of students in such associations helps to increase interest in learning, they see the practical application of knowledge and skills in real life. In addition, it contributes to the formation of a favorable supportive educational environment. An example of this is the artistic events, initiated by the student councils of the faculties: "Shevchenko & Me: let's unite in reading", which involved a lot of preparatory work – shooting a video (reading Shevchenko's poetry), as well as an event for the International Mother Language Day "Human wealth – mother tongue", "Christmas toloka", "Easter toloka", thematic master class "Ruhanka". This creates a favorable atmosphere of cooperation and interest and makes it possible to choose such events that reflect current topics and problems of our time.

2.5.4 INITIATIVES AND PROGRAMS TO SUPPORT MENTAL HEALTH

Mental health initiatives and programs, implemented by the university, have proven to be effective in creating a sustainable and supportive learning environment. The importance of such

programs lies not only in providing psychological support, but also in creating conditions for the development of personality and professional skills of students and teachers in crisis conditions.

Introduction of university lectures on relevant topics, such as reinterpretation of historical events in the context of the modern war ("City names as markers of history: trans(co)formation in times of the modern war and interpretation in artistic texts", "Life crises of the individual and resources for their living"), allowed the participants of the educational process to find new approaches to understanding events and ensure intellectual development. Workshops and trainings, in particular on the topics of developing personal boundaries and emotional resourcefulness, contributed to the formation of the skills of assertiveness, self-expression and self-control.

Curator hours, devoted to issues of psychological resilience and stress resistance, helped students and teachers gain knowledge and tools to effectively manage emotions and overcome stress. As an example, we can cite the following: "Development of psychological stability as a factor of increasing professional activity", "Stress resistance and methods of its formation in a higher educational institution", "Methods of managing emotions to preserve mental health", "Overcoming emotional barriers in professional activities: approaches and strategies", "Psychological barriers in interpersonal interactions and ways to overcome them". An important component of these meetings was the discussion of methods of developing psychological stability, which can be used in everyday life and professional activities.

The organization of sports events and recreational programs allowed the participants of the educational process to maintain physical health, which directly affects the psycho-emotional state and ability to study and work. For example, the measures "Recreational programs as a means of supporting the physical and mental health of students and employees", "Effectiveness of sports activities in influencing physical health and work productivity", "Impact of sports activities on the psycho-emotional state and working environment in institutions of higher education", "The role of physical exercises in maintaining the physical health and mental well-being of students and employees", "Organization and effectiveness of recreational activities to ensure optimal physical condition and emotional rest" became an effective means of improving the physical and mental well-being of students and employees, providing them a sense of satisfaction and inner harmony.

Developed reference materials ("The importance of self-knowledge and self-analysis to achieve emotional stability of students", "Methods of organizing time and planning to reduce stress in students", "Psychological strategies for managing emotions to increase the emotional well-being of students", "Physical activity and healthy life style in stress reduction") with tips for maintaining emotional health helped students access important information on self-help, self-regulation and stress reduction. The importance of these recommendations lies in the possibility of applying them in everyday life to increase emotional stability and achieve personal growth.

Thus, mental health support initiatives and programs at the university demonstrate a comprehensive approach to ensuring the well-being of participants in the educational process, creating conditions for their comprehensive development, adaptation and professional growth in conditions of unpredictability and social challenges.

2.5.5 OVERCOMING PROBLEMS OF ACADEMIC PERFORMANCE, ACADEMIC INTEGRITY AND DEFINING FUTURE PROFESSIONAL ROLES

The university faculties have actively adapted their methods of assessing students' success to the new conditions of distance learning, caused by the war. One of the cases was the development of individual educational trajectories, which took into account the personal circumstances of each student, caused by the war. This approach allowed students to work on the study material at their own pace and choose a convenient time for studying, using a variety of online platforms.

The basis of the individualized assessment was written works by students, which allowed not only to check the level of mastery of the material, but also to develop their analytical abilities. Along with this, multiple-choice testing and open-ended questions have become an effective tool for assessing students' knowledge in a wide range of disciplines.

Project-based assessment encouraged students to analyze, research and be creative. As part of this approach, students implemented projects that required deep immersion in the topic and demonstrated their presentation skills.

Considerable attention was paid at the faculties to self-evaluation and mutual evaluation, which taught students to critically evaluate their own work and the work of their classmates, maintaining a high level of academic responsibility and integrity.

To support the objectivity of evaluation, the faculties implemented the use of specialized platforms and programs for checking tasks for plagiarism, as well as online tests with automatic calculation of results.

A special innovation was the introduction of individualized tasks that allowed students to discover their own abilities and interests, as well as the evaluation of student success by involved stakeholders at reporting conferences, which provided a deeper and multifaceted understanding of their achievements.

These approaches to assessing performance and supporting academic integrity in the faculties not only adapted the learning process to the new challenges, but also provided students with the necessary support for their successful academic and personal development.

The analysis of respondents' answers also shows that the university's faculties emphasize the practical preparation of students for their future professional roles, especially the challenges facing online learning and global uncertainty. They introduced a number of practice-oriented forms and methods of work, aimed at students' acquisition of the necessary practical skills. These methods include case studies, immersion in a professional environment, practical problematization of theoretical material, storytelling, project activities, etc., which allow modeling quasi-professional activities, motivating self-education and self-improvement.

The use of the flipped classroom and group work techniques contributed to the development of communication skills and the ability to cooperate, share experiences and ideas. These methods emphasize the importance of collective learning and mutual assistance in preparing for future professional activities.

The faculties also introduced a cycle of training sessions as a separate module of the course, which contributed to interactive learning and the formation of practical skills. For example, the trainings "Gamification in foreign language learning" and "Games for the development of lexical competence" were aimed at improving students' readiness for teaching.

Considerable attention is paid to the individualization of professional training, in particular through the development of individualized educational programs that take into account the interests of students and their career goals. Students have the opportunity to choose specialized courses that match their personal preferences and future plans, while gaining practical experience in real educational and professional environments.

Deaneries and departments actively involve students in participating in thematic webinars, conferences, training courses, which contributes to their professional growth and development of skills necessary for future work in a modern educational environment. Such events provide students with ample opportunities for self-development and preparation for effective professional activity, taking into account modern challenges and trends in the world of education.

The adaptation of the faculties to the challenges of online learning and changes in the global context, by focusing on practical skills and individual educational trajectories, acts as a key factor in overcoming barriers and building a barrier-free inclusive educational environment. This approach not only promotes the involvement of students in an active educational process, but also ensures equal access to education for all participants, regardless of their location or personal circumstances.

2.6 MAINTAINING A SENSE OF COMMUNITY AS A WAY TO OVERCOME BARRIERS

Thus, the strategies, presented in the previous sections, for building and maintaining a university community of students and teachers, scattered around the world, contribute to overcoming educational and social barriers arising in the context of global uncertainty and online learning. The central idea is to create an atmosphere of inclusiveness and openness, where every member of the community feels wanted and free to express their thoughts and ideas without fear of judgment.

The strategy of creating a faculty community turned out to be a key aspect of successful adaptation to new learning conditions. The implementation of this strategy was carried out through various events, such as commemorative dates, university-wide lectures, competitions, flashmobs, scientific conferences, which not only bring students and teachers closer together, but also contribute to the development of mutual respect and support in the absence of physical proximity.

Giving students the opportunity to develop their own interests and engage in active collaboration and communication creates a foundation for individual growth and development. This is achieved through individual assignments, group projects, and individual counseling, which helps support academic well-being and overcome educational barriers.

Providing opportunities for self-expression and development of the unique abilities of each student through the creation of virtual communities, pages in social networks and "Trust Boxes" makes

a significant contribution to the formation of an inclusive educational environment. This approach not only promotes the exchange of knowledge and ideas, but also creates a sense of security and acceptance among the participants of the educational process.

The functioning of support and assistance mechanisms, in particular through curatorial counseling and access to psychological assistance, as well as the creation of author teams for grant applications and scientific research, helps to overcome barriers and involve students in active scientific and project activities.

Thus, maintaining a sense of community and active involvement of each member of the university team in joint activities and projects becomes a fundamental strategy for overcoming barriers, encountered in the educational process. This not only contributes to the formation of a barrier-free inclusive educational environment, but also opens up new opportunities for strengthening connections and cooperation among students and teachers, scattered around the world.

Our case study of the university demonstrates how strategies to support a sense of community can act as effective coping strategies, contributing to the resilience of a university system in the face of the challenges of online learning and global uncertainty. These strategies, which include holding various events, engaging in active collaboration, creating virtual communities, and providing opportunities for self-expression and development, not only help to overcome educational and social barriers, but also strengthen the university community's ability to adapt and develop in challenging environments.

These approaches to maintaining resilience and implementing coping strategies in response to new realities also reflect the implementation of the SDG, particularly Goal 4 "Quality Education". Providing inclusive and quality education, promoting lifelong learning opportunities for all is a top priority, which is supported by creating a barrier-free educational environment, involving students and teachers in joint work and supporting the active participation of every member of the community.

Engaging in collaboration and exchange of ideas not only contributes to solving academic problems, but also develops the skills necessary to solve global problems, contributing to the formation of responsible citizenship and cooperation that are in line with the Sustainable Development Goals. Thus, the efforts of universities are focused not only on overcoming immediate educational barriers, but also on fostering resilience, adaptability and readiness to act in a wider societal context.

As a result, maintaining a sense of community in the university environment becomes not only a way to overcome barriers, but also a strategic tool in building a resilient, adaptive and inclusive educational system capable of effectively responding to modern challenges and contributing to the achievement of the Sustainable Development Goals.

2.7 RECOMMENDATIONS AND CALL TO ACTION: FROM RESILIENCE TO INCLUSIVENESS, ACCESSIBILITY AND SUSTAINABLE DEVELOPMENT

The case of Berdyansk State Pedagogical University, presented by us, which adapted to the "University without Walls" format in response to the challenges of the war and the occupation of

Berdyansk, becomes a significant example of resilience and an innovative approach in the educational process. The experience of this university in overcoming barriers and building an inclusive educational environment through the implementation of flexible learning strategies, support of a sense of community, activation of student and teaching interaction can serve as an important guide for other universities that have faced similar challenges.

The strategies, presented in our research, include expanding digital access to educational resources, organizing online events to support the community, individualizing the learning process, and engaging students in active participation in scientific life and project implementation. These approaches not only help overcome spatial and psychological barriers, but also contribute to the formation of deeper involvement and motivation in learning, which are key to successful adaptation to the rapidly changing conditions of the modern world.

Based on the presented experience, we offer a number of specific actions that can be taken as a basis by other higher education institutions for the formation of a resilient and inclusive educational model:

1. Improvement of the infrastructure of the university. Actions in this direction, even in the context of online learning, can concern the provision of university websites and electronic platforms with educational materials and programs accessible from any device. This will allow students to manage their own learning process, choosing a convenient time and place for classes, which is especially useful for individuals, located in different geographical areas or who have limited opportunities to study in the traditional format.

2. Functioning of systemic psychological support and development of a stable academic online community. In addition to the available psychological service at the university for counseling and assistance, mentoring initiatives, aimed at helping everyone adapt to the new style of university life, will be effective. The development of an online community using social networks or a specialized platform for exchanging opinions, seeking help and establishing contacts will contribute to the comfort and stability of the educational process. The creation and support of online student clubs and societies will allow them to communicate informally and actively realize themselves in scientific, social or other aspects, overcoming possible barriers.

3. Ensuring the flexibility of the educational process. The implementation of adaptive learning models allows to adapt to the individual needs of students, taking into account the peculiarities of their physical, psychological, social or economic situation or geographical location. This increases students' motivation, promotes their involvement in learning, and in the long run increases the accessibility, quality and efficiency of education, ensuring a more inclusive and fair educational process.

4. Integration of the key ideas of the Sustainable Development Goals into the content of higher education. Promoting the principles of sustainable development among the academic community of the university gives all its participants a deeper understanding of social justice, responsibility and economic efficiency, which are key factors for the development of an inclusive society that cares about the well-being of citizens and future generations.

5. Quick detection, analysis and correction of problems. The key to the resilience of universities in the context of building a barrier-free educational environment is a regular review and analysis of the effectiveness of measures and policies in order to improve them and adapt them to the needs of the academic community. This requires quickly identifying new challenges and offering additional resources or strategies to address them.

6. Effective personnel policy. In an environment of instability and uncertainty, it is critical for universities to provide strong support for their staff. To do this, it is recommended to involve teachers and administrative staff in professional development. The organization of trainings and seminars will help to increase the awareness and skills of the staff regarding the adaptation of work methods in crisis conditions, the special features of supporting students with different needs. Additional financial support will help motivate teachers to overcome possible challenges.

These recommendations can help universities create a more inclusive and barrier-free educational environment, adapted to the challenges of the modern world with an emphasis on the Sustainable Development Goals.

2.8 CONCLUSIONS

This chapter examines the current problems, faced by Ukrainian higher education in the context of inclusiveness and accessibility, emphasizing their importance for achieving the Sustainable Development Goals. Particular attention is paid to the role of barrier-free accessibility not only as a means of integration of people with disabilities and representatives of various social groups, but also as an important element that contributes to socio-economic transformations, playing a key role in the processes of modernization and strengthening the stability of society.

The main barriers that limit access to quality education are highlighted, including economic, social, cultural and technological challenges, and the need to overcome them to create an inclusive educational environment is emphasized. The case of Berdyansk State Pedagogical University reveals the specific problems, faced by academic communities of higher education institutions in the context of the war in Ukraine, including displacement, loss of infrastructure, and the need to adapt the academic community to online learning.

The results of the survey of the academic community demonstrate the specific difficulties, experienced by teachers and students. It has been found that the biggest barriers were the increase in administrative and technical workload due to the need to use online platforms and digital tools, the deterioration of the psychological and emotional state of participants in the educational process, difficulties in maintaining interaction due to problems with the security and confidentiality of online communications. The digital divide and the need to adapt pedagogical approaches to the demands of online learning are also identified as significant challenges. The identified problems required the development and implementation of effective strategies to minimize the impact of negative factors and promote a more inclusive and effective educational process.

The authors describe in detail how Berdyansk State Pedagogical University successfully adapted to new realities by introducing the "University without Walls" model, which made it possible to preserve the continuity of the educational process despite the serious challenges. Of particular value is the analysis of the strategies for overcoming barriers, which highlights the importance of innovative approaches and flexibility in crisis situations, in particular: technical support, psychological assistance, adaptation of educational methods to online format, as well as joint efforts to preserve the community and identity of the university. Emphasis is placed on the need to overcome the digital divide and ensure equal access to educational resources for all students.

Based on the analysis, recommendations are proposed that can serve as an important reference point for other higher education institutions that seek to implement more flexible, inclusive and barrier-free educational models in the face of modern challenges: improving the university infrastructure, functioning of systemic psychological support, development of a stable academic online community, ensuring the flexibility of the educational process, integrating the key ideas of the SDG into the content of higher education, quick identification, analysis and correction of problems, effective personnel policy, etc.

The study highlights the importance of accessibility as a fundamental element for achieving sustainable development and contributes to the debate on inclusive models of education.

FUNDING

The National Research Fund of Ukraine supported the work under project No. 0123U104226 "Design of an Inclusive Educational Environment for Higher Education Institutions".

ACKNOWLEDGMENTS

The authors of this study would like to express their sincere gratitude to the Armed Forces of Ukraine, whose unwavering courage and dedication made this work possible.

CONTRIBUTION TO SUSTAINABLE DEVELOPMENT GOALS

This initiative supports the following United Nations Sustainable Development Goals (SDGs): SDG 1: No Poverty; SDG 3: Good Health and Well-being; SDG 4: Quality Education; SDG 5: Gender Equality; SDG 8: Decent Work and Economic Growth; SDG 9: Industry, Innovation, and Infrastructure; SDG 10: Reduced Inequality; SDG 11: Sustainable Cities and Communities; SDG 17: Partnerships for the Goals.

REFERENCES

1. Copeland, K., Tarver, E. N. (2020). Diversity, Equity, and Inclusiveness in Higher Education. Higher Education Response to Exponential Societal Shifts. IGI Global, 313–329. https://doi.org/10.4018/978-1-7998-2410-7.ch015
2. Brundenius, C. (2016). Universities and Inclusiveness: An Overview. Universities, Inclusive Development and Social Innovation. Springer International Publishing 387–405. https://doi.org/10.1007/978-3-319-43700-2_16
3. Shulla, K., Filho, W. L., Lardjane, S., Sommer, J. H., Borgemeister, C. (2020). Sustainable development education in the context of the 2030 Agenda for sustainable development. International Journal of Sustainable Development & World Ecology, 27 (5), 458–468. https://doi.org/10.1080/13504509.2020.1721378
4. Unterhalter, E. (2019). The Many Meanings of Quality Education: Politics of Targets and Indicators in SDG 4. Global Policy, 10 (S1), 39–51. https://doi.org/10.1111/1758-5899.12591
5. Shulla, K., Filho, W. L., Lardjane, S., Sommer, J. H., Borgemeister, C. (2020). Sustainable development education in the context of the 2030 Agenda for sustainable development. International Journal of Sustainable Development & World Ecology, 27 (5), 458–468. https://doi.org/10.1080/13504509.2020.1721378
6. Sengupta, E., Blessinger, P., Hoffman, J., Makhanya, M. (2019). Introduction to Strategies for Fostering Inclusive Campuses in Higher Education. Strategies for Facilitating Inclusive Campuses in Higher Education: International Perspectives on Equity and Inclusion. Emerald Publishing Limited, 3–14. https://doi.org/10.1108/s2055-364120190000017001
7. Lopatina, H., Tsybuliak, N., Popova, A., Hurenko, O., Suchikova, Y. (2023). Inclusive education in higher education institution: Are Ukrainian faculty members' ready for it? Research in Education, 118 (1), 49–72. https://doi.org/10.1177/00345237231207721
8. Lozano, R., Merrill, M., Sammalisto, K., Ceulemans, K., Lozano, F. (2017). Connecting Competences and Pedagogical Approaches for Sustainable Development in Higher Education: A Literature Review and Framework Proposal. Sustainability, 9 (10), 1889. https://doi.org/10.3390/su9101889
9. Remenick, L. (2019). Services and support for nontraditional students in higher education: A historical literature review. Journal of Adult and Continuing Education, 25 (1), 113–130. https://doi.org/10.1177/1477971419842880
10. Arkorful, V. E., Basiru, I., Anokye, R., Latif, A., Agyei, E. K., Hammond, A. et al. (2019). Equitable Access and Inclusiveness in Basic Education: Roadblocks to Sustainable Development Goals. International Journal of Public Administration, 43 (3), 189–202. https://doi.org/10.1080/01900692.2019.1627554
11. Perales Jarillo, M., Pedraza, L., Moreno Ger, P., Bocos, E. (2019). Challenges of Online Higher Education in the Face of the Sustainability Objectives of the United Nations: Carbon Footprint, Accessibility and Social Inclusion. Sustainability, 11(20), 5580. https://doi.org/10.3390/su11205580

12. Bautista-Puig, N., Aleixo, A. M., Leal, S., Azeiteiro, U., Costas, R. (2021). Unveiling the Research Landscape of Sustainable Development Goals and Their Inclusion in Higher Education Institutions and Research Centers: Major Trends in 2000–2017. Frontiers in Sustainability, 2. https://doi.org/10.3389/frsus.2021.620743
13. Bohdanov, I., Kovachov, S., Tsybuliak, N., Lopatina, H., Popova, A., Suchikova, Y. (2023). Resilience in Wartime Research: Case of Anticrisis Management at a Ukrainian University. 2023 IEEE 18th International Conference on Computer Science and Information Technologies (CSIT). https://doi.org/10.1109/csit61576.2023.10324134
14. Owens, T. L. (2017). Higher education in the sustainable development goals framework. European Journal of Education, 52 (4), 414–420. https://doi.org/10.1111/ejed.12237
15. Heaton, S., Teece, D., Agronin, E. (2022). Dynamic capabilities and governance: An empirical investigation of financial performance of the higher education sector. Strategic Management Journal, 44 (2), 520–548. https://doi.org/10.1002/smj.3444
16. Børte, K., Nesje, K., Lillejord, S. (2020). Barriers to student active learning in higher education. Teaching in Higher Education, 28 (3), 597–615. https://doi.org/10.1080/13562517.2020.1839746
17. Janke, S., Messerer, L. A. S., Merkle, B., Rudert, S. C. (2023). Why do minority students feel they don't fit in? Migration background and parental education differentially predict social ostracism and belongingness. Group Processes & Intergroup Relations, 27 (2), 278–299. https://doi.org/10.1177/13684302221142781
18. Afzal, A., Khan, S., Daud, S., Ahmad, Z., Butt, A. (2023). Addressing the Digital Divide: Access and Use of Technology in Education. Journal of Social Sciences Review, 3 (2), 883–895. https://doi.org/10.54183/jssr.v3i2.326
19. Hamilton, L. G., Petty, S. (2023). Compassionate pedagogy for neurodiversity in higher education: A conceptual analysis. Frontiers in Psychology, 14. https://doi.org/10.3389/fpsyg.2023.1093290
20. Bellare, Y., Smith, A., Cochran, K., Lopez, S. G. (2021). Motivations and Barriers for Adult Learner Achievement: Recommendations for Institutions of Higher Education. Adult Learning, 34 (1), 30–39. https://doi.org/10.1177/10451595211059574
21. Gurenko, O., Suchikova, Y. (2023). The Odyssey of Ukrainian Universities: From quality assurance to a culture of quality education. Management in Education. https://doi.org/10.1177/08920206231218351
22. Popova, A., Kovachov, S., Lopatina, H., Tsybuliak, N., Suchikova, Y., Bohdanov, I. (2023). High-Quality Digital Bichronous Education for Nanoengineers During the War in Ukraine: Does Technology Knowledge Matter? 2023 IEEE 5th International Conference on Modern Electrical and Energy System (MEES). https://doi.org/10.1109/mees61502.2023.10402460
23. Peregudova, V. (2023). People learn fastest on the barricades: Science at war. Management in Education. https://doi.org/10.1177/08920206231188018
24. Mytsyk, H., Popova, A., Bohdanova, M. (2024). The Use of Gamification in the System of Social and Psychological Adaptation of Forcibly Displaced Teenagers from Ukraine: Reflections

of the German Experience. Journal of Education for Students Placed at Risk (JESPAR), 1–27. https://doi.org/10.1080/10824669.2024.2309359

25. Bohdanov, I., Suchikova, Y., Kovachov, S., Hurenko, O., Aleksandrova, H. (2023). Youth views on the role of local government and universities in the development of deoccupied territories. Knowledge and Performance Management, 7 (1), 29–46. https://doi.org/10.21511/kpm.07(1).2023.03
26. Polishchuk, Y., Lyman, I., Chugaievska, S. (2023). The "Ukrainian Science Diaspora" initiative in the wartime. Problems and Perspectives in Management, 21 (2), 153–161. https://doi.org/10.21511/ppm.21(2-si).2023.18
27. Tsybuliak, N., Suchikova, Y., Shevchenko, L., Popova, A., Kovachev, S., Hurenko, O. (2023). Burnout dynamic among Ukrainian academic staff during the war. Scientific Reports, 13 (1). https://doi.org/10.1038/s41598-023-45229-6
28. Tsybuliak, N., Suchikova, Y., Gurenko, O., Lopatina, H., Kovachov, S., Bohdanov, I. (2023). Ukrainian universities at the time of war: From occupation to temporary relocation. Torture Journal, 33 (3), 39–64. https://doi.org/10.7146/torture.v33i3.136256
29. Suchikova, Y., Tsybuliak, N., Lopatina, H., Shevchenko, L., I. Popov, A. (2023). Science in times of crisis: How does the war affect the efficiency of Ukrainian scientists? Problems and Perspectives in Management, 21 (1), 408–424. https://doi.org/10.21511/ppm.21(1).2023.35
30. Suchikova, Y. (2023). A year of war. Science, 379 (6634), 850. https://doi.org/10.1126/science.adh2108
31. Hurenko, O., Bohdanov, I., Tsybuliak, N., Lopatina, H., Suchikova, Y., Popova, A. (2023). Development of an Inclusive Educational Environment in Higher Education Institutions: A Project Approach Using IDEF0. 2023 IEEE 18th International Conference on Computer Science and Information Technologies (CSIT). https://doi.org/10.1109/csit61576.2023.10324022
32. Barvinok, V., Pudło, T. (2023). Formation of Online Content Patterns of Higher Education Based on Trends to Preserve Intellectual Capital Quality Decreasing in Ukraine During Wartime. Business Ethics and Leadership, 7 (2), 109–127. https://doi.org/10.21272/bel.7(2).109-127.2023
33. Sullivan, J. E., Kamensky, D. (2024). Putin's power play: Russia's attacks on Ukraine's electric power infrastructure violate international law. The Electricity Journal, 37 (2), 107371. https://doi.org/10.1016/j.tej.2024.107371
34. Kenworthy, A. L., Opatska, S. (2023). Teaching During War in Ukraine: Service-Learning as a Tool for Facilitating Student Learning and Engagement During Times of Uncertainty and Crisis. Journal of Management Education, 47 (4), 417–439. https://doi.org/10.1177/10525629231166695
35. Suchikova, Y., Tsybuliak, N., Lopatina, H., Popova, A., Kovachov, S., Hurenko, O., Bogdanov, I. (2023). Is science possible under occupation? Reflection and coping strategy. Corporate Governance and Organizational Behavior Review, 7 (2), 314–324. https://doi.org/10.22495/cgobrv7i2sip10

36. Lopatina, H., Tsybuliak, N., Popova, A., Bohdanov, I., Suchikova, Y. (2023). University without Walls: Experience of Berdyansk State Pedagogical University during the war. Problems and Perspectives in Management, 21 (2), 4–14. https://doi.org/10.21511/ppm.21(2-si).2023.02
37. Suchikova, Y., Tsybuliak, N. (2023). Universities without walls: global trend v. Ukraine's reality. Nature, 614 (7948), 413. https://doi.org/10.1038/d41586-023-00380-y
38. Glazkova, I., Khatuntseva, S., Yaroshchuk, L. (2020). Professional Pedagogical Culture: Historical Culturological Aspect. Revista Romaneasca Pentru Educatie Multidimensionala, 12 (3), 144–161. https://doi.org/10.18662/rrem/12.3/314
39. Glazkova, I., Khatuntseva, S., Vaseiko, Y., Shymanovych, I., Yaroshchuk, L. (2022). Future teachers' training to application of cognitive barriers in professional activities during the Covid-19 pandemic. Revista Amazonia Investiga, 11 (50), 66–78. https://doi.org/10.34069/ai/2022.50.02.7