The impact of distance education on students' motivation and emotional state in the context of the pandemic and the armed conflict in Ukraine

El impacto de la educación a distancia en la motivación y el estado emocional de los estudiantes en el contexto de la pandemia y el conflicto armado en Ucrania

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Resumen
El objetivo de la investigación fue explorar el impacto de la educación a distancia en la motivación y el estado emocional de los estudiantes en Ucrania durante el confinamiento causado por la pandemia de COVID-19, de 2020-2022, y el conflicto armado que comenzó el 24 de febrero de 2022. La investigación se llevó a cabo a través de la encuesta regional de Ucrania utilizando una herramienta conveniente como Google Forms. El enfoque fue un diseño cuantitativo, descriptivo-correlacional, realizado entre 858 estudiantes de la Universidad Estatal de Comercio y Economía, la Universidad Nacional Taras Shevchenko de Kyiv, la Universidad Nacional de Aviación, la Universidad Borys Grinchenko de Kyiv, la Universidad Nacional de Ciencias de la Vida y del Medio Ambiente de Ucrania, la Universidad Nacional de Kiev y la Universidad Lingüística de Ucrania. La novedad del estudio radica en el hecho de que proporcionar un entorno educativo seguro para los estudiantes es una de las principales tareas del proceso educativo en condiciones de guerra. La importancia del estudio radica en la posibilidad de utilizar las soluciones prácticas propuestas para mejorar la organización del proceso educativo de las instituciones de educación superior en condiciones de guerra y cierre.

Palabras clave: Educación, pandemia, COVID-19, educación superior, educacon a distancia, conflicto armado, Ucrania.

Abstract

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The aim of the research was to explore the impact of distance education on students' motivation and emotional state in Ukraine during the lockdown caused by the COVID-19 pandemic of 2020-2022 and the armed conflict beginning February 24, 2022. The research was carried out via Ukraine's regional survey by using a convenient tool – Google Forms, which provided quick feedback from respondents in the form of answers to questions. The survey was conducted in compliance with the ethical research standards. The approach was a quantitative, descriptive-correlational design conducted among 858 students at the State University of Trade and Economics, Taras Shevchenko National University of Kyiv, National Aviation University, Borys Grinchenko Kyiv University, National University of Life and Environmental Science of Ukraine, and the Kyiv National Linguistic University in Ukraine. The novelty of the study lies in the fact that providing a safe educational environment for students is one of the main objectives of the educational process in wartime conditions and lockdown. The practical significance of the study lies in the possibility of using the proposed practical solutions to improve the organization of the educational process of higher education institutions under conditions of war and lockdown.

Keywords: Education, pandemic, COVID-19, higher education, distance education, armed conflict, Ukraine.

Introduction

The sphere of education in Ukraine, like all areas of society, has undergone many adjustments in recent years. The first factor that fundamentally changed the branch was the outbreak of the COVID-19 pandemic. It has created a new paradigm of 'life in social distancing', which in its turn has had a massive impact on education worldwide and has caused the largest malfunction of education systems throughout history. Thereby, it affected nearly 1.6 billion students in more than 190 countries on all continents (United Nations, 2020). As a result, most universities throughout the world and the Ukrainian as well, shifted from conventional, face-to-face instruction to distance education, which meant that teaching approaches, tools of assessments, and ways of teacher-student communication had to be modified.

The new reality was characterized by social and physical distancing, restrictions on mobility, emergence of alternative forms of work and learning that have had short- and long-term consequences in the global and national dimensions. The second factor that has irretrievably changed the country's arrangement since 24 February 2022, is the armed aggression of the Russian Federation against Ukraine, the Russian genocide of the Ukrainian people. The critical situation has forced the Ukrainian government, university management teams, and the society in general to rush into quick solutions to the emerging challenges imposed by the armed conflict on Ukraine's

system of higher education, consolidating forces and resources to restart the entire higher education system online.

As of June 30, 2022, in terms of Russian aggression, the current state of education and science in Ukraine is as follows. On February 25, the day after the full-scale invasion of Ukraine by Russian troops, the Ministry of Education and Science of Ukraine (MESU) recommended that the educational process in education institutions of all levels be halted and that teachers and educators be placed on a two-week vacation. At that time part of Ukraine was under temporary occupation, and a number of cities and villages (Mariupol, Chernigiv, Sumy, Kharkiv, cities and villages of the Kyiv region and others) became the scene of active hostilities.

According to the Office of the UN High Commissioner for Refugees (UNHCR) the number of refugees who have fled Ukraine for other countries since 24 February 2022 is more than 8,0 million. A much larger number are internally displaced. An estimated 5.7 million school-aged children in Ukraine (ages 3-18) have been affected by the war (United Nations High Commissioner for Refugees, 2022).

Per UNICEF estimates 3,3 million children need educational support and 2,2 million need protection services, 2,8 million children are estimated to be internally displaced. In the sphere of higher education infrastructure, 2061 educational institutions have been damaged by bombing and shelling, 212 of them are completely destroyed. Since March 14, the educational process in universities was resumed in some regions of Ukraine. As of March 22, the Universities in 15 regions of Ukraine restored and continued the educational process in distance learning mode, the Universities in another 4 regions were still on forced vacations, in one area the Universities did not work (UNICEF, 2022).

There is no doubt that these two factors have greatly influenced the country's research potential. Nevertheless, much research has been conducted to analyze the impact, challenges, and innovations caused by the pandemic on higher education at the national and global levels. Researchers have analyzed the difficulties and achievements of national higher education systems in the transition to mass distance education. In addition, Ukrainian scholars have been challenged to conduct research aimed at providing higher education in the context of Russian aggression. However, the lack of research on the motivational component of students and their emotional state due to the transition to distance education in connection with the consequences of the pandemic in the educational sphere and the armed conflict in Ukraine, motivated us to carry out this research.

Thus, the purpose of this study is to examine the impact of distance education on students' motivation and emotional state due to the outbreak of the pandemic and the Russian aggression in Ukraine. The data collected via Ukraine's regional survey, properly analyzed and interpreted, are intended to contribute to the generalization of knowledge about the problem in the global dimension.

Methodology

The research was carried out via Ukraine's regional survey conducted during the lockdown (the Covid-19 pandemic of 2020-2022) and the war in Ukraine (March-June 2022). The survey was conducted in compliance with the ethical research standards. Prior to the survey, all the participants were informed about the goals of the research and assured that their answers would remain confidential and would be used for the research purposes only. The approach was a quantitative, descriptive-correlational design conducted among 858 Ukrainian students.

The order of the researchers' actions was as follows: questionnaire design, data collection, data analysis, and knowledge generation. Data collection was carried out using a convenient tool – Google Forms, which provided quick feedback from respondents in the form of answers to questions. Questionnaires were distributed to Ukrainian students. The data analysis stage included the analysis of quantitative data. Interpretation of the analyzed information led to the generation of knowledge.

Participants

The total number of the respondents was 858 people. 23.3 % of the respondents were students of the State University of Trade and Economics (Kyiv, Ukraine), 22.14 % were students of Taras Shevchenko National University of Kyiv, 18 % of the respondents were students of National Aviation University, 15 % were students of Borys Grinchenko Kyiv University, 12.12 % were students of National University of Life and Environmental Science of Ukraine, and 9.6 % of the students were from Kyiv National Linguistic University. Also, 24.2 % of the respondents were first-year students, 28.5 % were second-year students, 22.7 % were third-year students, 20.3 % were fourth-year students, 4.2 % were participants in Master's degree programs. The students who participated in the survey were of different majors and have been learning English as a foreign language. The average age of the respondents was 20 years old.

Instruments

The data were collected using Google Forms, which provided quick feedback from respondents in the form of answers to questions. The questionnaires were distributed to students of higher education institutions of Ukraine. To achieve the goal of the research the following methods were used: the authors' questionnaire "Attitude to distance learning in higher education"; methodology "Learning motivation in higher education" by T. Ilyina; "Personality diagnostic technique on failure avoidance motivation" (T. Ehlers); "Personality diagnostic technique on success motivation" (T. Ehlers). T. Ilyina's technique makes it possible to determine what the student is focused on when studying at the university: gaining knowledge (striving to gain knowledge, curiosity); mastering a profession (striving to gain professional knowledge and form professionally important qualities) or getting a diploma (striving to get a diploma with formal knowledge assimilation, striving to find workarounds when passing tests and exams). Both T. Ehlers techniques are well-known monoscale tests, aimed to identify the degree of motivation of an individual to achieve success or avoid failure. Student's T-test was used for statistical data processing.

Data collection

The field stage embraced November-December 2020, March-May 2021 (randomly chosen periods during lockdown caused by the COVID-19 pandemic) and March-June 2022 (wartime period). The questionnaires of each stage covered two different areas: the emotional state and motivation of students (as shown in Table 1 and Table 2).

Table 1

The sample of Authors' questionnaire "Attitude to distance learning in higher education during the Covid-19 pandemic" (the first stage of the survey)

Issues on Students' Emotional State & Students' Motivation

Part 1. Students' emotional state

1. Specify / tick the platforms you were studying at during the lockdown?
2. Is your attitude to distance learning positive?
3. Did you cope with the educational materials during the quarantine period?
4. Did you receive a sufficient amount of information needed forgetting results?
5. Did you have a desire to study independently during the quarantine?
6. Did you have an opportunity to receive extra advice from lecturers?
7. Would you like to continue studying in a distant mode?
8. Did you have negative feelings during distance learning?

Part 2. Students' motivation

1. Did you feel highly motivated to study before the lockdown/ quarantine?
2. Do you feel the highest motivation at the beginning of each term?
3. Do tutors affect your study motivation?
4. Do any factors negatively affect your motivation in studying? If yes, what are they?
5. Are you motivated to learn different foreign languages?
6. Do any factors negatively affect your motivation in studying?
7. Has your motivation changed under the lockdown/quarantine?
8. Has the amount of time you spend on studying changed during the lockdown?
   (Do you spend more or less time on studying)?
9. Has the lockdown/quarantine affected the process of your studying?
10. Do you think the level of your motivation can be increased?

Table 2
The sample of Authors' questionnaire "Attitude to distance learning in higher education
under conditions of martial law" (the second stage of the survey)

Issues on Students' Emotional State & Students' Motivation

1. Did the war change your everyday life?
2. Are you ready to continue your studies in the conditions of the war?
3. Did you come back to studies during the war?
4. Do you have technical problems?
5. Did you stay in Ukraine or leave for other countries?
6. Do you cope with internal worries?
7. Do you feel responsible for getting higher education during the war?
8. Do you realize the necessity of learning foreign languages during the war?
9. Are you motivated by continuous learning?
10. If you compare your emotional state during the lockdown in Ukraine due to Covid-19 pandemic and the war in Ukraine, is it different?
11. If you compare the level of your motivation during the lockdown in Ukraine due to Covid-19 pandemic and the war in Ukraine, is it different?

Analysis of data

Analysis of the responses of the survey participants (the actual diagram in the text is not given for obvious reasons related to limitation on paper size) showed that Ukrainian students used various educational online platforms, such as Zoom (27.8%), Skype (6.5%), Microsoft Teams, Viber (10.3%), Moodle (19.7%), WhatsApp (5.2%), etc. The majority of respondents (30.5%) answered that they used Microsoft Teams and considered it the most convenient for studying among other available.

Analysis of the opinions of survey participants about their attitude to distance education showed a different attitude to it among students. The majority (72.5%) had a positive attitude while 27.5% of the respondents had a negative one. Some of them made a number of comments. Among the advantages of online education, the respondents noted the ability to plan their time. When asked if respondents coped with the study materials during the quarantine period, 65.3 % said that they did so easily, as they did not feel any difference between electronic learning and face-to-face instruction. Everything depended on the lecturers' teaching methods. It was difficult for 19,7% of the students and 15% could not give an exact answer to this question.

Results

According to the study, the majority of respondents (69.9%) were satisfied with the amount of information required to obtain the results, 22.1% of respondents were ambiguous about the training materials and only 8% of students were not satisfied with the materials. To deepen their knowledge 71% of students used additional information in preparation for classes. We asked students about their desire to study independently during quarantine, 68% of them wanted constant communication with teachers and groupmates. Only 19% of the students had a desire to study independently, and 13% of the respondents did not want to study at all. According to the results, we can note a low level of self-motivation in 32% of students.

Answers to the question "Did you have an opportunity to get additional advice from teachers?" showed that 65.4% of students received additional advice and counseling. 12.6% received counseling upon admission, 6.8% of students were denied, and 15.2% ignored additional assignments and advice.

When the respondents were asked about the continuity of distance education, 67% of them would not want to continue learning in distance mode in the future, 21.8% of students were satisfied with distance education, and 11.2% found it difficult to answer the following question. When we asked about feelings during electronic learning, 65% of the respondents said that the transition to e-learning has made a significant difference in students' lives, which means an adaptation to the loads and forms of work, lifestyle, etc. So, they tried to adapt to new realities. It caused feelings of unexpectedness, hesitation and lack of psychological safety. 13% of the survey participants reported that they had anxiety and worries because of technical problems, which decreased their motivation. 22 % of the students faced depression, lack of interest, attention and personal contacts.

The students were also asked to leave their feedback due to the feelings they had during electronic learning. The majority of respondents indicated such psychological effects as emotional disorders, insomnia, constant bad mood, irritability and emotional exhaustion. The majority of respondents reported above-average levels of anxiety. It is also significant to mention that according to the respondents' opinion, serious damage to their psychological health is caused by the media, political demarches and strategic directions of political parties. A study was also conducted on student satisfaction with the learning process, in particular, the difference in satisfaction with classroom instruction before quarantine and during electronic learning.

Based on the table below, we can see that there are clear differences in student satisfaction with offline and electronic learning. It can be said that with electronic learning students have a clear decrease in satisfaction with learning, in particular, they note the lack of interest and small amount of information, poor interaction with tutors and groupmates (as shown in Table 3).

Table 3
Summary chart of students' answers on their satisfaction with face-to-face instruction and e-learning

Matter of interest	Answer options		
	Yes	No	Not sure
Did you feel highly motivated to study before the lockdown/ quarantine?	78%	19%	3%
Do you feel the highest motivation at the beginning of each term?	56%	35%	9%
Do tutors affect your study motivation?	85%	13%	2%
Do any factors negatively affect your study motivation?	64%	28%	8%
Are you motivated to study different foreign languages?	93%	2%	5%
Has your motivation changed under the lockdown/quarantine?	43%	50%	7%
Has the amount of time you spend on studying changed during the lockdown/quarantine?	67%	32%	1%
Has the lockdown/quarantine affected the process of your studying?	59%	28%	13%
Do you think your study motivation can be increased?	79%	6%	15%

In addition, we conducted a study of students' experience with war, given the many challenges that students and the personnel face as they continue the educational process in war. 100% of the respondents noted that the war changed their way of life. 19% of the respondents left Ukraine for safe places in order to survive and try to continue their studies. Among the survey participants, almost 85% of the students returned to studies. The same number believed that training during the war was necessary and communication during studies helped overcome difficulties. However, 36% faced difficulties. It was hard to concentrate on the learning process, 15% found it

difficult to even start studying. Moreover, 41% had unstable Internet connections. 75% of the students said that they had certain symptoms of mental trauma. The most common symptom is the so-called "emotional swing", when the mood changes quickly.

Also, one in five students had sleep disorders, one in ten had a decreased desire to communicate, nightmares and memory impairment. Unfortunately, 46.7% of the surveyed students encountered stress; 20% of the students are in a state of constant anxiety that something might happen to them; 22% of the respondents feel anxiety, fear; 1.5% of respondents are prone to sudden panic, but 67% feel confident. The good thing is that only 14.3% of the surveyed students are depressed. In our opinion, it is positive that 82.7% of students are not in a state of hopelessness. Only 2% of the respondents had a high level of exhaustion, 71% had an average level, and 27% had a low level. In most cases, exhaustion manifested itself in sadness, a decrease in trust in others, thoughts about one's own helplessness and that something bad might happen to them. Females felt twice as psychologically exhausted than males. For them, war is a more traumatic experience both emotionally and physically. There is also a relatively higher level of psychological exhaustion among those who were forced to change their place of residence.

A questionnaire on students' motivation and emotional state during the war enabled us to come to important conclusions. 76% of the respondents were motivated because they think about the future of our country. They were proud of being members of such a strong country. They answered that they wanted to become better and much more skillful in their professions. 37% answered that an obvious disadvantage of learning during the war was the limitation of live communication affecting learning both directly and through mental deterioration and loss of motivation. It has become difficult for students to adapt to new standards of living. Besides, 93% indicated that their emotional state during the lockdown in Ukraine due to Covid-19 pandemic and the war in Ukraine was different.

The respondents indicated that they had symptoms of depression (47.3% of respondents), symptoms of anxiety (72.6%), panic attacks (39.2%), despair (36.4%), and post-traumatic stress disorder (PTSD) (47%). However, the level of motivation during the war was higher than under the conditions of Covid-19 pandemic. 72.5% of the respondents demonstrated such an indicator. They felt responsible for getting higher education, but at the same time it was not easy for them to concentrate on their studies. Moreover, 89.4% of students realized the necessity of learning foreign languages during the war as never before. In addition, the survey results proved that joy and pride

in one's country contribute the most to psychological well-being; returning home at the first opportunity also strengthens a person and helps him or her recover faster. Behavioral strategies and active problem solving contribute to low levels of psychological exhaustion.

Discussion

It was analyzed the answers to the questions in the questionnaires and we found out that the majority of respondents adapted to the features of distance education. The lack of motivation is primarily related to the peculiarities of the organization of the learning process, students did not have an opportunity to actively interact with their group mates during most classes. Due to students' remarks, we found out that the importance of self-esteem motivation has not decreased, it remains important to prove to themselves that they are able to cope with the challenges of the pandemic. The obtained results do not contradict the research, according to which during the pandemic, the motivation of students is heterogeneous: students, who perceived online learning positively and as an advantage, were more motivated while students, who perceived the increase of their autonomy rather as an obstacle, showed lower motivation to study. The impact of distance education on the emotional state and motivation is more significant under the war conditions than during the quarantine. Moreover, female students are more vulnerable than male ones.

We also asked students to describe their feelings while studying remotely. Distance education exacerbated a number of psychological problems, among which the problem of emotional burnout of the individual is not the least. We observe this phenomenon both in students and lecturers, in various negative physiological and psychological reactions, in particular, insomnia, fatigue, the appearance of psychosomatic diseases, and destructive psychological states, such as stress occurrence, bad mood, depression, apathy, anxiety, fear and irritability. They can also be connected with the situation of getting out of the comfort zone. A lot of students have problems with Internet connection. Technical problems also cause anxiety and worries. It is hard to adapt to the electronic learning environment, which leads to distraction and time management problems. The survey results showed very clearly that most students (65%) coped with the educational materials during the quarantine period because they used to do everything properly. Successful studies depended on lecturers' methods of teaching. They also remarked that the personality of a lecturer is very important for students' motivation in general.

According to the survey data, 78 % of students were highly motivated to study before the quarantine, however, 50 % of the respondents felt no changes in their academic motivation during that period. But at the same time, 43% felt changes in motivation under the lockdown/quarantine. The quarantine affected academic motivation, but for all that, students, who are normally highly motivated during each term, would like an increase in academic motivation even during the lockdown and they are ready for changes as they think their study motivation can be increased (79%). However, 28% of the respondents mentioned that the quarantine had negatively affected the process of their studying. 6% of them feel there's no chance to increase academic motivation. In order to prevent these shortcomings, the Ministry of Education and Culture monitors advanced foreign practices and conducts extensive work with participants in the educational and pedagogical process. Also, universities constantly monitor the effectiveness of distance education, exchange experience with other universities to establish online education and reduce all the negative consequences mentioned above.

The responses to the question if the students had an opportunity to receive extra advice from lecturers showed that the majority (65,4%) of the students had got additional advice and consultations. An asynchronous model, based on regular exchange between tutors and students of educational materials, plays a great extra role in distant learning. Students also gave answers to the question if they have a desire to study independently during the quarantine, the majority (68%) of them wanted constant communication with their lecturers and groupmates. Only 19% of the students had a desire to study independently. It means that effective interaction between teachers and students, control of group dynamics in studies, interesting content, stimulating students' development are also effective for increase in students' motivation. However, with the start of hostilities in Ukraine, the weaknesses and threats associated with distance education have intensified. Many participants in the educational process are psychologically and physically not ready to continue their studies. In addition, students and lecturers often do not have the conditions to conduct classes (stable Internet connection, computers, a separate room, etc.).

After all, on the basis of the data we can find out that studying can become one of the activities that will help students shift their attention from news to other topics. Also, we should remember that the more variety we can add to studies, the better we will feel. So, creative posters that call for NATO to close the skies, can help students direct their energy and inspire them. At the same time, students return to their studies to get away from the news and move on.

We analyzed the results and concluded that it is normal to feel anxiety, worry, and fear when you are surrounded by hostilities and your country is at war with an aggressor. This is an acceptable reaction of your psyche and body to the situation. It is important to keep calm in order to save lives without putting anybody in danger because of emotions and experiences.

Limitations and future research

This study has some limitations. Firstly, the data were collected through online questionnaires. Secondly, electronic learning and the survey was limited to the participants from temporarily occupied territories in Ukraine and those who were in the ranks of the Territorial Defense or the Armed Forces of Ukraine. Thirdly, the findings only reflect the students' perceptions. In particular, the results of the study can be used as a basis for the survey for lectures who conduct electronic learning as well as for school students and school teachers. Further prospects for the study of the problem are to study the impact of distance education on teachers' motivation and emotional state. All this requires additional investigation.

Conclusions

The results of the research proved a considerable impact of distance education on students' motivation and emotional state during the COVID-19 pandemic and the war in Ukraine. The introduction and use of electronic learning is the need of the modern world. Due to the current situation in Ukraine it can have both negative and positive impact on students' motivation and emotional state. The other aspects that influence students' motivation and emotional state are as follows: psychological conditions, time-management, communication/technical skills; a good study environment, individual psychological characteristics etc.

Understanding factors that affect students' motivation and emotional state will help students and lecturers optimize their approaches to education. The positive aspects, revealed during the analysis of the distance education process, made it possible to develop recommendations for a more effective renewal of the educational process in wartime and the lockdown and the integration of distance education as a separate form of education in peacetime.

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