Virtual Educational Space and Psychological Problems in a Pandemic

Vdovichena Olga a*, Bahunina Olha b, Tovstukha Olesya Mikolaivna c, Lukianchuk Alla d and Budko Hanna Yurievna e

a Department of Commodity Studies, Marketing, Digital Economy and Entrepreneurship Chernivtsi Trade and Economic Institute of Kyiv National Trade and Economic University, Chernivtsi, Ukraine.

b Department of Anesthesiology, Intensive Therapy and Medicine of Emergency Conditions of Postgraduate Education Faculty Dnipro State Medical University, Dnipro, Ukraine.

c Department of Psychology Institute of Pedagogy and Psychology State mortgage «Lugansk National University of Taras Shevchenko», Starobilsk, Luhansk region, Ukraine.

d Department of Pedagogy, Psychology and Management The Bila Tserkva Institute of Continuing Professional Education, Bila Tserkva, Ukraine.

e Department of Pathology Sumy State University, Medical Institute, Sumy, Ukraine.

Authors’ contributions

This work was carried out in collaboration among all authors. Author VO designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Authors BO and TOM managed the analyses of the study. Authors LA and BHY managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Aims: We aimed to analyze the peculiarities of educational simplicity and psychological problems under pandemic conditions, to conduct an empirical study among the participants of the educational space, to identify correlations between psychological properties of personality and the level of procrastination.

*Corresponding author: E-mail: olgadvdovichen@ukr.net;
Study Design: empirical study among the participants of the educational space, identifying correlations between psychological properties of personality and the level of procrastination. 

Place and Duration of Study: 320 students and teachers of higher educational institutions in Lviv took part in the survey. 

Methodology: In our study we used descriptive and empirical methods with application of elements of statistics - Pearson correlation analysis. In the study we also used the following sociological methods: online survey “Detection of socio-psychological problems, procrastination generated by the COVID-19 pandemic in the activity of educational institutions“, scales of diagnosing emotional states of personality, “Procrastination Scales“ by B. V. Takman and methods of FAM (Feeling-Activity-Mood). Place and duration of the study: Dnipro State Medical University, Institute of Kyiv National Trade and Economic University and Medical Institute Sumy State University, of State mortgage «Lugansk National University of Taras Shevchenko» from April to October 2021. We also followed systemic approach, comparative method, weighting and forecasting method, according to which virtual educational environment also opens new perspectives for teachers and students, providing opportunities of access to multidirectional information, which allows to acquire social knowledge, social experience, formulate life prospects and realize personal potential. 

Results: It was found that teachers and students during the COVID-19 pandemic had a higher level of positive well-being, activity, a higher level of mood than during the pandemic. It was also determined that teachers and students had an increased level of procrastination during the pandemic. According to the results of correlation analysis in the group of students and teachers’ correlation relationships between the indicators: the level of procrastination, mood, well-being was established. It has been established that the crisis has hurt both the country and the population quite badly. Training for pupils and students and teachers changed from full-time to distance learning. This form of learning vividly showed all the difficulties: the motivation of students; their ability to self-education; communication in the learning process; the organization of the learning process. For teaching staff, the main difficulty became mastering digital technology to organize the educational process. Empirically it was confirmed that the emotional state “before” and “during” the pandemic is significantly different. 

Conclusion: The stressful situation has had its negative impact on the mental health of participants in the educational process, so an important role in this time of crisis is the activity of the psychological service of the educational institution. 

Keywords: Distance learning; COVID-19 pandemic; education; students; education; quarantine; psycho-emotional state. 

1. INTRODUCTION 

The sudden onset of the global crisis has affected almost all areas of the country’s development. Millions of people have already felt the economic shock of loss of jobs, reduced incomes, and livelihoods due to the quarantine regimes imposed on countries [1-7]. This, in turn, leads to conflicts in families, a deterioration of psycho-emotional state and, consequently, an increase in victims of domestic violence and suicides. According to UN Secretary-General António Guterres: "Mental health problems, in particular depression and anxiety, are one of the greatest causes of misery in our world [8]. Separate changes and negative effects have occurred in the educational field. Material damage can be restored with the normalization of the state in the country, but the past years of education, while the adapted form of education has worked - it is difficult to restore, more effort and motivation is needed. The relevance of this study is due to the fact that the COVID-19 pandemic affected the psychological state of participants in the educational process, which increased the level of stress and had a negative impact on productivity and organization of the educational space. The purpose of this paper is to analyze virtual educational space and psychological problems during the pandemic. Object of research is virtual space and psychological problems of population during COVID-19 outbreak. In order to achieve the objectives of the study, a number of tasks were formed for implementation, namely: to analyze the theoretical basis regarding the consequences of COVID-19 in the educational sphere; to determine the main psychological consequences of the imposed quarantine restrictions; to form a number of methods and techniques for diagnosis
of the psychological and emotional state of participants in the educational process; to conduct empirical research, formulate conclusions and practical recommendations based on research results. Virtual space has always been in demand among people of all ages, but with the pandemic of media sources began to be filled with not always reliable information. The difficulty in obtaining reliable and useful information in the information space is one of the main problems of formation of anxiety states of the population, so the theoretical significance of the work is to analyze the factors of influence on the psychological state of the population. Among the media psychological phenomena are: anxious information space (loading the information system with disturbing messages, which contain information about the threat to life); information oversaturation (exhaustion caused by excessive contact with the media); polarization (the division of participants into certain groups based on their own beliefs). The listed markers influence the personality negatively enough, therefore practical value of work is empirical research of influence of pandemic on psychological and emotional condition of the personality, in particular, at participants of educational process.

2. MATERIALS AND METHODS

The quarantine restrictions imposed by the COVID-19 pandemic affected public sentiment, halted retail, hotel and restaurant industries, and air travel [1]. Psychological consequences of the pandemic are not immediately noticeable, but in the long run they cause invaluable harm, affecting not only the psycho-emotional state, but also the psychosocial and intellectual development of individuals [2]. Stresses and conflicts in families related to the effects of the pandemic negatively affect not only adults, but also students. Social derivation arises from the pandemic learning model, the participants of the educational process feel uncertainty in the future, uncertainty in the future professional path [3]. The actual model of learning was the use of virtual educational space. According to the Belarusian researcher I. H. Vozmytel “virtual education is like learning in a learning environment, where teacher and student are separated in time and space, and the course content is provided by the teacher using multimedia resources of the Internet and video conferencing” [4]. M.L. Smulson interprets a virtual learning environment as “the whole set of content placed on the Internet (i.e. created by means of software or computer networks) of various educational and other materials: courses both systematic, corresponding to curricula of secondary and higher educational institutions, professional development courses, etc., and “not programmed”, causal, so-called “training”, as well as information materials of educational content on websites of other direction and in social networks” [5], use of educational virtual environment opens new perspectives for teachers and students, providing opportunities for access to multidirectional information that allows them to acquire social knowledge, accumulate social experience, formulate life prospects and realize their personal potential in the shortest possible time. At the same time, the information society brings numerous risks and dangers to human life. In the conditions of colossal volumes of information people find it more and more difficult to navigate the information flows, getting the necessary experience and avoiding the manipulation of consciousness and behavior [7]. The transition to an alternative form (distance learning) is the right decision in a crisis situation, but there are many unresolved issues, so distance learning has not justified the government's confidence in the quality of education during the quarantine. On the one hand - training continues, the appropriate conditions are created, but students have a decrease in motivation to learn, stress, tension, isolation, which negatively affects the students' learning. This is due to the fact that communicative ties at school increase the motivation to learn in many students, so they are not used to study in isolation. Hence, as a consequence, there is ignoring the learning process at home and procrastination during the study period. It is also important to note that it is important for children to feel competent in learning, but teachers in a distance learning environment do not always manage to consider the principle of individual approach to tutoring an individual student. The lack of individual interaction with the teacher and peers has a negative impact on the participants of the educational process, as social interaction helps students develop fundamental social and emotional skills [9]. As a result of the closure of educational institutions and the transition to distance learning, students spend more and more time in isolation, do not communicate with friends, spend less time outside and feel the deterioration of their psychological state. Education applicants have been found to have learning problems. For example, one of the most common pandemic and isolation problems
students experienced was difficulty focusing on learning [10]. Procrastination as a psychological phenomenon is associated with the accumulation of a large number of tasks with little time to complete them. Procrastination is understood as a behavior of consistent procrastination; a consequence of poor behavioral performance; the result of emotional distress [11], there are observed difficulties in completing tasks due to their high level of complexity [12]. Procrastination is characterized as a deliberate postponement of certain activities, despite the awareness of undesirable results [13]. The consequences of procrastination are decreased emotional resilience, guilt, lack of effectiveness in activities, dissatisfaction. In an effort to complete the work begun within a limited period of time, a person experiences intense emotional discomfort. Psychological tension affects the well-being of the person. On the basis of procrastination there is a feeling of guilt for the unfulfilled work, a decrease in self-control skills. Analyzing the educational sphere, it should be noted that the primary tasks of psychological activity for educational institutions at the present time is to study the socio-psychological consequences of the pandemic and related social phenomena to optimize the educational process. Both practical and theoretical methods were used in this work. Among the theoretical methods of research, analysis, synthesis, comparison, generalization, and classification were used. Analysis and synthesis are two interrelated logical methods of scientific research, which are the processes of imaginary or actual separation of the whole into component parts and combining the parts into a whole. The method of analysis is valuable in that the division of a complex phenomenon into simpler elements makes it possible to separate the essential from the inessential, and to reduce the complex to the simple. The method of synthesis, in turn, allows you to compose the parts and learn the phenomenon under study as a whole. Comparison is characterized by comparing an object or phenomena of reality in order to establish similarity or difference between them, as well as finding common factors. The method of comparison is always an important condition of generalization, which highlights the characteristic features of objects and allows you to group objects by species, groups, and other features (classification). The practical block was built on the analysis of the results of the test “Study of emotional states of personality”. The computer version of the author’s test “Studying the emotional states of a personality” was used to conduct the corresponding psychodiagnoses. It should be noted that its universality is confirmed by the fact that in different languages (Ukrainian, English, Russian) the number of terms reflecting these states is approximately the same. The chosen emotional states were differentiated into positive and negative, which allowed creating a differentiated scale of the typical emotions and emotional states of personality, including four modalities: aesthetic, moral-humanistic, intellectual-creative, and intimate-personal. The sample of subjects included 320 students and teachers of higher educational institutions. In order to determine the impact of the pandemic and quarantine measures on the implementation of the educational process in general and its participants, in particular, the questionnaire method was used. We conducted our own online survey involving teachers and students and used such methods as: online survey “Detection of social and psychological problems, procrastination generated by the COVID-19 pandemic in the activities of educational institutions”, diagnostic scales of emotional states of personality, “Procrastination Scales” by B. V. Takman and the FAM technique by H. Aizenk. Students and teachers at universities - Institute of Kyiv National Trade and Economic University and Medical Institute Sumy State University, of State mortgage «Lugansk National University of Taras Shevchenko» -- 65% of women, 37% of men took part in the survey.

3. RESULTS AND DISCUSSION

The pandemic period is a crisis period, during which the leading spheres of the country - economic, tourist, commercial, medical, and educational spheres in particular - suffer. The educational sphere has undergone significant changes, which have affected the mental state of the participants in the educational process and the quality of education itself. The disappointing characteristics of the diagnostic study indicate the effects of the pandemic on the country’s education system. Having analyzed the results of the survey among university teachers, it was found that: 64.2% of respondents reported difficulties with the organization of the virtual space (lack of professional literature, Internet network problems and lack of skills in cloud technology); 60.5% of respondents said that all planned goals and objectives were not met. 59.8% of the teachers observe emotional burnout, a decrease in the level of emotional stability; 57.4% of the respondents observed a decrease in the students' motivation for learning;
45.6% of the respondents said that they observe a decrease in intellectual functions; 62.4% experience a decrease in motivation for professional activities. Among students the following results are observed: 34.2% of the respondents reported difficulties with the organization of virtual space (lack of professional literature, Internet network problems and lack of skills in cloud technologies); 48.3% of the respondents said that they do not fulfill all the planned goals and objectives; 44.6% of students observe emotional burnout, decrease in the level of emotional stability; 42.6% of respondents noticed decreased motivation for learning; 39.6% of respondents said that they observe decrease in intellectual functions; 56.4% experience decreased motivation for learning activity. As the statistical data show, the trend of increasing emotional tension among teachers and students in the conditions of the educational process is growing. This is confirmed by the survey of teachers' emotional manifestations “before” and “during” the COVID-19 pandemic. The obtained indicators are presented in the form of Table 1.

According to the results of the SUN technique, it was found that 54.4% of the students had a high level of positive well-being by the COVID-19 pandemic, 30.6% had an average level of positive well-being, and 15% had a low level of positive well-being. 46.7% of students during the COVID-19 pandemic were found to have a high level of well-being, 44.9% were found to have an average level of well-being, and 8.4% were found to have a low level of well-being. This indicates that students were found to have higher levels of well-being by the COVID-19 pandemic than during the pandemic. Also, 56.8% of students were found to have a high level of activity by the COVID-19 pandemic, 33.2% were found to have an average level of activity, and 10% were found to have a low level of activity. 43.5% of teachers during the COVID-19 pandemic were found to have a high level of activity, 46.4% medium, and 10.1% were found to have a low level of activity. This indicates that teachers were found to have a higher level of activity by the COVID-19 pandemic than during the pandemic. 55.6% of teachers April to October 2021 during the COVID-19 pandemic were found to have high levels of mood, 37.4% were found to have medium levels, and 12.9% were found to have low levels of mood. 47.8% of teachers during the COVID-19 pandemic had a high mood level, 45.9% had an average mood level, and 6.3% had a low activity level. This indicates that teachers were found to have higher mood levels by the COVID-19 pandemic than during the pandemic.

The table shows that during the pandemic the indicators of emotional state worsen in both teachers and students. According to the results of the FAM technique, it was found that 51.4% of teachers had a high level of positive well-being by the COVID-19 pandemic, 32.5% had an average level of positive well-being, and 16.3% had a low level of positive well-being. 41.3% of teachers during the COVID-19 pandemic were found to have a high level of well-being, 47.6% were found to have an average level of well-being, and 11.1% were found to have a low level of well-being. This indicates that teachers were found to have higher levels of well-being by the COVID-19 pandemic than during the pandemic. Also, 52.3% of teachers April to October 2021 during the COVID-19 pandemic were found to have a high level of activity, 34.8% medium, and 12.9% were found to have a low level of activity. 43.5% of teachers during the COVID-19 pandemic were found to have a high level of activity, 46.4% medium, and 10.1% were found to have a low level of activity. This indicates that teachers were found to have a higher level of activity by the COVID-19 pandemic than during the pandemic.

### Table 1. Results of the survey on the emotional expressions of participants in the educational process

| NO | Emotional state                  | “Before” pandemic COVID-19 | “During” pandemic COVID-19 |
|----|----------------------------------|---------------------------|---------------------------|
| Teachers assessed their condition | Emotional arousal             | 41.3%                     | 51.2%                     |
| 1.  | Emotional stability              | 51.1%                     | 37.3%                     |
| 2.  | Decrease of emotional background | 39.8%                     | 46.7%                     |
| Teachers assessed their condition | Emotional excitability         | 45.4%                     | 45.9%                     |
| 1.  | Emotional stability              | 54.2%                     | 32.6%                     |
| 2.  | Decrease in emotional background | 11.4%                     | 37.5%                     |

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pandemic were found to have a high level of mood, 38.5% were found to have an average level of mood, and 5.7% were found to have a low level of mood. 50.9% of students during the COVID-19 pandemic were found to have high mood levels, 44.7% were found to have average mood levels, and 4.4% were found to have low mood levels. This indicates that students were found to have higher mood levels by the COVID-19 pandemic than during the pandemic.

According to the results of B. V. Takman’s Procrastination Scale, 45.8% of students were found to have a high level of procrastination by the COVID-19 pandemic, 37.4% were found to have an average level of procrastination, and 16.8% were found to have a low level of procrastination. 52.3% of students during the COVID-19 pandemic were found to have high levels of procrastination, 40.8% medium, and 6.9% were found to have low levels of procrastination. This indicates that students were found to have lower levels of procrastination by the COVID-19 pandemic than during the pandemic. According to the results of B. V. Takman’s Procrastination Scale, 41.4% of teachers were found to have high levels of procrastination by the COVID-19 pandemic, 32.5% were found to have medium levels, and 26.1% were found to have low levels of procrastination. 49.8% of teachers during the COVID-19 pandemic were found to have high levels of procrastination, 42.4% medium, and 7.8% were found to have low levels of procrastination. This indicates that teachers were found to have lower levels of procrastination by the COVID-19 pandemic than during the pandemic. According to the results of an online survey on procrastination it was found that the question of the questionnaire “How does the realization that you have not completed some important tasks affect you?” 66.4% of teachers and 58.7% of students surveyed responded that the awareness of not completing an important task affects them negatively. To the next question of the questionnaire, “What helps you overcome procrastination?” most teachers responded that time management in organizing their own activities helps them. Most students responded that in overcoming procrastination it helps them to plan their own activities and organize leisure and search for resources. To the question of the questionnaire “What positively influences the level of your motivation to activity” 60.4% of teachers responded that the level of their motivation to activity is positively influenced by the improvement of students’ academic performance, 39.6% of teachers responded that increasing their own professional competence and using modern educational technologies. 54.6% of the students responded that the level of their motivation to activity is influenced by the presence of professional interest and material reward of activity, 35.4% of the students responded that getting professional experience increases the level of their motivation to activity.

To the next question of the questionnaire “Optimizing Your Activity” 63.7% of teachers responded that their activity optimizes the use of modern educational technologies and 36.3% of teachers responded that the implementation of goals optimizes their professional activity. 55.3% of students responded that having professional goals optimizes their activities and 44.7% of students responded that their activities optimize their experiences. In response to the final question of the questionnaire, “What advice can you give to teachers on overcoming procrastination?” 62.7% of teachers responded that developing self-management skills and organizing professional activities helps them in overcoming procrastination and 37.3% of teachers responded that organizing work and rest helps them in overcoming procrastination. 59.8% of students responded that in overcoming procrastination they are helped by the development of volitional qualities and organization of activities and 40.2% of students responded that finding internal resources helps them in overcoming procrastination. According to the results of correlation analysis in the group of teachers there is an inverse correlation relationship between the indicators of procrastination level and mood (r=-0.72), well-being (r=-0.57), this indicates that with the growth of procrastination - the deposit of unfinished business decreases the mood and well-being of the individual, because unfinished business causes guilt, which has a negative impact on the well-being and mood. See the section in Table 2.

According to the results of the correlation analysis, the inverse correlation relationship between the indices of procrastination level and mood (r=-0.67), well-being (r=-0.78) was established in the group of students, this indicates that with the growth of procrastination - the deposit of unfinished business, the mood and feeling of students decrease, because unfinished business causes negative emotions, which affects the well-being and mood accordingly. See the section in Table 3.
Table 2. Results of correlation analysis in the group of teachers

| Variable            | Correlations                        |
|---------------------|-------------------------------------|
|                     | Procrastination level | Feeling | Activity | Mood    |
| Procrastination level | 1,00                   | 0,39    | 0,32     | -0,72   |
| Self-Esteem         | 0,39                   | 1,00    | 0,41     | -0,57   |
| Activity            | 0,32                   | 0,41    | 1,00     | 0,30    |
| Mood                | -0,72                  | -0,57   | -0,30    | 1,00    |

Table 3. Results of correlation analysis in the group of students

| Variable            | Correlations                        |
|---------------------|-------------------------------------|
|                     | Procrastination level | Feeling | Activity | Mood    |
| Procrastination level | 1,00                   | 0,37    | 0,34     | -0,67   |
| Self-Esteem         | 0,38                   | 1,00    | 0,42     | -0,78   |
| Activity            | 0,32                   | 0,41    | 1,00     | 0,30    |
| Mood                | -0,67                  | -0,78   | -0,30    | 1,00    |

Having analyzed the general characteristics of the impact of the pandemic on the participants of the educational process, it is fundamental to focus on the psycho-emotional state of the participants in the educational process. The empirical study was built on the computer version of the test “Study of emotional states of personality”. During the analysis of the received data we took into account the main indicators of teachers' and students' emotional experiences: positive and negative emotional states as well as their correlation with each other; typical emotional reactions and emotional response trajectories of a personality; the level of procrastination affects the well-being and emotional sphere of a personality; work and rest organization will positively influence overcoming procrastination among teachers and students. The study confirms the general deterioration of the psychoemotional state of the participants in the educational process. And it is not surprising, because with the introduction of new forms in the pedagogical process is difficult for all participants. After all, virtual education requires a lot of resources to learn to use it successfully and effectively. The issue of mastering online services to work with students is quite difficult, because both students and teachers need to quickly adapt to the latest work services. It is a variety of digital technologies complicate the process of organizing distance learning, because they require registration and creation of several accounts [14]. It is important to coordinate the actions of all teachers and choose a unified approach and tools for work during distance learning. Procrastination is a factor that negatively affects the process of self-education and development, prevents the formation of personality in the social environment. The empirical study showed that procrastination is inherent in all the surveyed students and teachers but is manifested in varying degrees. The reasons for procrastination among students are difficulties in organizing their own activities, lack of willpower, lack of time, lack of motivation, fatigue, health condition. The reasons for procrastination among teachers are large volume of tasks, lack of time, change in the rhythm of life due to COVID-19, availability of other more important tasks. It should be noted that in both low- and high-level groups there are students with predominant acceptance of procrastination, and lack of desire to overcome it, as students tend to rest, have a busy study schedule due to COVID-19. The group of teachers revealed a desire to overcome procrastination through the use of psychotherapeutic techniques. Having analyzed the problem areas of distance learning and the emotional state of the participants in the educational process, psychological support during the pandemic becomes an important point. After all, along with information oversaturation, the general level of anxiety among the population is increasing. Another important factor is that when social interaction is deprived, negative emotions are not released, but are preserved inside. When communicating with each other visually, when interacting, it is easier to say what's bothering you, to hear words of support or to see an understanding look in the other person's eyes. In isolation, this need is hard to meet, so you need to connect additional ways of working with the emotional sphere. The accumulation of internal tension negatively
affects the work process and relationships with family and friends. In these cases, psychological services will be appropriate and necessary. Psychologists in the educational sphere have also undergone some changes in their work. Psychologists face new practical tasks during the pandemic, namely preservation and strengthening of mental and social health; promotion of psychological safety, provision of psychological and socio-pedagogical assistance to all participants of the educational process, promotion of personal, intellectual, physical, and social development of applicants for education [15,16]. Directions of work of the practical psychologist such as education, prevention, diagnostics, consulting, public relations are conducted with the help of various means of communication: websites of educational institution, telephone, e-mail, Skype, online groups of teachers, students, parents. During the period of remote interaction mode, special attention is focused on providing advisory assistance to students, parents, and teachers. All participants in the educational process, especially students, are in dire need of psychological support, recommendations on such urgent issues: how to organize yourself during the period of self-isolation and distance learning, prevention of negative emotions, as well as on how to use free time for the benefit of personal and professional development. It is possible to give recommendations on overcoming procrastination among teachers and students: identification of personal priorities and concretization of the order of their implementation; mobilization of efforts and resources for the prompt performance of important tasks; identification of own potential resources, forces and capabilities; planning appropriate goals and tasks with specified time for their implementation; distribution of large and complex tasks into separate steps; increasing motivation for activities; clear planning of their activities for a certain period; organizing One of the main directions of work in educational institutions is advisory assistance, which is actively carried out during distance learning. Advice on improving concentration and attention, teaching effective memorization, and assistance in structuring the learning and rest mode are also advisable [16,17]. In our study we studied social and psychological problems generated by the COVID-19 pandemic among participants of the educational process" and set the following tasks: to form a number of methods and techniques for diagnosing the psychological and emotional state of participants of the educational process; to conduct an empirical study, to formulate conclusions and practical recommendations based on the results of the study. We succeeded in accomplishing the set tasks. We conducted an empirical study of the emotional sphere and procrastination among the participants of the educational process. With the help of correlation analysis, we investigated the influence of procrastination on professional activity and emotional area of teachers and students. We also managed to develop recommendations for overcoming procrastination among the participants of the educational process and optimization of the educational process among teachers and students [18,19]. For the future we plan to investigate the gender aspect of the influence of procrastination on the professional activity of employees of different specialties and to develop a series of psychological trainings aimed at overcoming procrastination on the activity of an individual. We also plan to investigate the influence of value, sense-life orientations on procrastination and stress resistance of a personality. The conducted study shows the following results, namely, that the intensity of emotional states in the participants of the study differs depending on age. Positive emotions were found when processing the results in smaller numbers, but if we compare only positive emotions across all age categories, it is the middle-aged professionals (30 to 45 years) who are more likely to experience positive emotional states among teachers. The category “over 45” has the lowest rates of positive emotions. This indicates low liability and adaptability to the changes taking place in the world in general and in their professional activity (transition to alternative forms of education - distance learning) in particular. Such effects are caused, among other things, by the crisis period, which occurs at the age of 40. The crisis is characterized by summing up the intermediate results of life, a person becomes more conservative with the predominance of a stereotyped worldview. Regarding the results concerning negative emotional states, the following conclusions can be made: a high level of manifestation of negative emotions is attested among the category “over 45 years old”. Negative states include fear, despair, aggressiveness, uncertainty, apathy, anger and increased emotional vulnerability. The categories of educators “under 30” and “30 to 45” are less likely to experience negative emotions. This indicates greater stress tolerance in relation to the rapid changes of the environment. As for the “frustration” criteria, high scores are also counted
among the category of people “over 45 years old”. The state of frustration reduces the emotional, volitional, and intellectual activity of the individual, and also slows down the nervous system. It is important to note that any negative emotional experiences (anger, rage) are more constructive than the state of frustration, as they induce a person to act, to display an active attitude in life, to change a situation that does not fit. Disillusionment is a consequence of strong stress for a person when he or she does not understand what is happening and therefore does not know how to react. In a state of frustration, a person often feels victimized, he loses contact with his resources and ceases to be active, cheerful, and whole. During the COVID-19 outbreak, the main cause of frustration is the inconsistency of information about the pandemic and the timing of quarantine, legal remedies, safe behavior, etc. Note that the perception of contradictory data broadcast by the media, amplified by rumors, leads to a loss of confidence and the experience of events “in themselves” through their own subjective experiences. Changes in the emotional state of education applicants are due, among other things, to forced isolation and the transition to distance learning. With the onset of the pandemic there were difficulties in the organization of educational simplicity, that is, the provision of quality education was threatened, because it became impossible to work and function as in pre-pandemic times. Gradually obtaining education for applicants changed the form of education from full-time to distance learning. This change clearly demonstrated certain problem areas for organizing effective work. Among the common issues that arise are the following:

1. Motivation. Classical distance learning is aimed at comprehending motivation in students receiving knowledge, and accordingly accompaniment by teachers is impossible. An important problem of education is the motivation of school students, which in distance education becomes even more important.

2. Students’ inclination to learn. Virtual education is aimed at having students master the learning material by their own efforts. However, there is a category of schoolchildren whose skills of independent mastery of school material are sufficiently undeveloped. The problem for teachers is how to organize students’ independent work, and the problem for parents is how to teach their children independence and how to control their work.

3. Communication during the educational process. In the regular educational process, there is communicative interaction between the teacher and students, as well as students’ interaction with each other. In a virtual environment, social interaction is reduced. And it affects the establishment of the necessary speech and social skills of students. There are psychological and pedagogical problems: how to organize communication between the teacher and students, and what should be distant educational interaction in the Internet environment, so that there would be time for the teacher and the student to relax.

4. Differentiation of educational process is an important criterion of virtual educational environment, since students can choose the speed of presentation of training material, duration of training. It is difficult for teachers and pupils to observe norms of differentiated educational approach in school environment, where teachers work with many classes and pupils are busy with academic subjects.

5. Some digital literacy skills have been developed. Modern students, including elementary school students, quickly master electronic learning tools. However, for teachers this problem is complicated by the fact that they need not only to master the new tool, but also to change their own tried-and-true years of teaching methods, find and apply new methods and forms so that to achieve certain results and goals of the educational process.

6. The need for student identification. Distance learning provides more opportunities for falsification of results (performance of tasks by another person). In the conditions of classical distance learning this problem is solved when the motivation of the student is high - those who study remotely, first of all, want to get new knowledge and skills, and only then - a certain grade. In the traditional school assessment remains the main stimulus for learning, and therefore the risk of not doing homework and tests increases significantly.

7. Defining a clear time limit for online lessons and students’ independent work. During face-to-face instruction, there is a weekly class schedule and amount of
homework that is limited by the age of the student. However, during the pandemic, teachers and students spent much more time on academic work.

8. Lack of a single unified learning platform. After all, in distance learning, teachers can use a variety of online services that they have mastered. But students need to create accounts in these services and master each one, which only complicates learning and shifts the focus from the content of the subject to the application of digital technology.

The lack of a single unified platform for learning is particularly stressful for the participants of the educational process, because it is necessary to have a clear idea of how to organize effective educational work and how to structure and organize their actions in relation to this work. There are two ways to solve this problem: to use the familiar services for the teacher - simple, understandable, but not always relevant to educational needs, or to use new specially designed services for distance learning. The first way is less stressful, but it is necessary to think over how to adapt your material to familiar platforms. The other way is more stressful, because the algorithm of work with them has to be started from scratch, which takes a lot of time, which is already limited for teachers, because learning must happen constantly and systematically. Also, in the preparation of classes the teacher can use the following means of work, namely Google documents, presentations, tables, pictures, etc. A program for creating screenshots, video recordings allow you to take screenshots as images, edit them and share, record video lessons. Virtual whiteboards allow you to gather a variety of resources for a lesson in one place and provide students with the opportunity to leave their answers, links to completed assignments. And provide feedback. Appropriate online services are designed for video conferences, webinars for video lessons. Google platforms are designed for online testing, group quizzes to provide feedback and control.

4. CONCLUSION

To summarize the above, it is worth noting that the crisis has hurt both the country and the population quite badly. Trade, tourism, transportation, and especially the educational system underwent critical changes. Education for schoolchildren and students changed from full-time to distance learning. This form of learning vividly demonstrated all the difficulties of the educational process on distance learning, namely: the decline of students’ motivation; their ability to self-education; communication in the learning process; organization of the learning process. For teaching staff, the main difficulty became mastery of digital technologies for the organization of educational and teaching process. These changes were actively accompanied by a deterioration of the psycho-emotional state of the participants in the educational process. It was empirically confirmed that the emotional state before and during the pandemic differs significantly. For example, among students, emotional calmness and equilibrium increased almost threefold. Among educators, indicators of emotional calm and depressed state doubled. The stressful situation has brought its negative consequences on the psychological health of participants in the educational process, therefore the activity of the psychological service of an educational establishment becomes critically important at this time of crisis. Psychological service should control and provide positive emotional climate in the team, provide support, and conduct necessary preventive and corrective work with all participants of the educational process for effective training of students. Distance learning cannot harmoniously and holistically replace full-time education. However, based on today's realities, teachers should be prepared for force majeure circumstances and instantly join the work in a different format.

CONSENT

We declare that written informed consent was obtained from the students (or other approved parties) for publication of this case report and accompanying images.

ETHICAL APPROVAL

The authors have obtained all necessary ethical approval from suitable Institutional or State or National or International Committee.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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