



# PROBLEMS AND PERSPECTIVES OF CONTEMPORARY EDUCATION

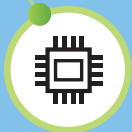


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# **PROBLEMS AND PERSPECTIVES OF CONTEMPORARY EDUCATION**

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# IMPLEMENTATION OF DISTANCE TECHNOLOGIES IN EURO-ASIAN UNIVERSITIES DURING THE COVID-19 PANDEMIC

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## INTRODUCTION

The changes occurring during the coronavirus pandemic have affected all spheres of human life, including education (Larina, 2020; Anderson, 2020). At present in the modern information society, distance education forms a central part in the higher education system during the period of coronavirus (Maslova & Lagutkina, 2020). The effectiveness of interaction between a university teacher and a student, built with the use of modern telecommunications means, involves the integration of information and pedagogical technologies (Taneva, 2020), contributing to the interactivity of cooperation in the educational space (Bergdahl & Nouri, 2020). At the same time, training is carried out synchronously in real time (video

communication, chat, and others), as well as asynchronously (e-mail). The main quality of distance education (DE) is the personal and reliable telecommunication nature of education, the purpose of which is the creative self-expression of remote students. Pugachev (2012), Hodges et al. (Hodges, Moore, Lockee, Trust, & Bond, 2020) put forward proposals not to use this term - DE, since there are certain differences in the quality expectations of DE due to limited planning, a variety of existing opinions on accessibility, safety, copyright compliance, and learning outcomes. According to Rumble (2019), DE is characterized as an independent form of distance learning, when the student is physically separated from the university teacher, but at the same time he/she is directly involved in the planned learning activities (Holmberg, 2005).

Studies carried out before the pandemic emphasized the feasibility of educational institutions developing plans to maintain lifelong learning despite possible crisis situations (Faherty et al., 2019; O'sullivan et al., 2009; Kokhan, Ivanov, & Starostina, 2020). According to the European Commission (2019), in most cases educational institutions in Europe have digital strategies and programs for the development of online technologies, including remote and hybrid forms of teaching and learning in certain circumstances (The Swedish Department of Education, 2020 a, b). However, during the transition to DE, teachers may not have the time, understanding, and timely preparation to try to change or adjust their teaching to meet the online requirements for effective learning (Bergdahl, Nouri, Fors, & Knutsson, 2020).

What was observed in world space during the emergency transition to DE can be noted as a global, volumetric experiment. The widespread transition to the online mode turned out to be a real challenge to the existing offline form of education. Thus, at this time, the international classical model of education is being tested for reliability and sustainability. Higher education teachers are worried about the risk of losing fundamentality due to a shift in emphasis on online teaching in a non-contact way, thereby losing the opportunity for live two-way communication (Zener, Oshkina, 2020; Kolokoltsev, Iermakov, Tretyakova, Kraynik, & Romanova, 2020).

We analyzed the scarce literature on distance education technologies (DET) in Mongolia and came to the conclusion that the transition to the online format did not become a challenge for the entire education system, since various technologies have been used for a long period of time in the country that make



it possible to implement communication between the university teacher and a student (Robinson, 1995; Tuul, Banzragch, & Saizmaa 2005). Since the end of the 20th century, there have been DE programs in Mongolia, the priority of which is the popularization of television and radio education (Baggaley & Belawati, 2010). Since 2013, education in the country has begun to adapt to a fully-fledged electronic and distance format. The information and educational system developed ([www.esis.edu.mn](http://www.esis.edu.mn)) is a single information fund that monitors the work of educational institutions, analyzes the results of their activities, and carries out planning.

In his article, Uyanga (2006) presented SWOT – an analysis of the strengths and weaknesses, opportunities, and threats to computer science education in Mongolia, as well as findings, recommendations, and visions for development. The authors' research on the effectiveness of DE of midwives and nurses for maternal and child health in Mongolia has also identified the strengths and weaknesses of online learning (Willott, Sakashita, & Gendenjamts, 2018).

In connection with the spread of coronavirus in China and the nearby geographical location of the Mongolian territory, on January 29, 2020, the Order No. A/43 of the Minister of Education, Culture, Science and Sport "On the adoption of operational measures" was issued, and according to this order, all universities were transferred to online learning.

As for Russia, it should be noted that only from March 16, 2020 did the forced transition of all highest institutions to DE begin (the Order of the Ministry of science and higher education of the RF of 14 March 14, 2020 No. 397 "About the organization of educational activity..."). According to the data of A. Milkus (2020), by the end of March no more than 80% of Russian universities could accomplish a rapid transition into the remote format. At the same time, 88% of university teachers are skeptical about the format of DE, and they believe that it is better to teach in person.

*The study subjects* are students of Mongolian National University of Medical Sciences (MNUMS, Mongolia) and Trans-Baikal State University (TBSU, Russia).

*The aim of the study* is to conduct a comparative analysis of the organization of the transition to DO during the coronavirus period in the universities of Mongolia and Russia in order to identify problems that need to be addressed by the administrations of universities and academic teaching staff.

## METHOD

To solve the problems, the content and internal structure of the survey of students of two universities in the form of questionnaires, consisting of 23 questions, were thought out. The comparative student survey was carried out using the Google Forms system.

The main number of students totalling 271 participants who took part in the questionnaire was presented by MNUMS - 121 people (respondents of the 1-st group), TBSU - 150 people (respondents of 2-nd groups). All of them are 1-4 course students of full-time and part-time education, male and female. The average age of the students was: MNUMS -  $24.2 \pm 5.5$  years, TBSU -  $25.8 \pm 6.9$  years.

Students of MNUMS study on an extra-budgetary basis, 89 students of TBSU study on the budget basis, and 61 students of TBSU study off-budget.

Data on the respondents of two universities are presented in Table 1.

**Table 1.** General and demographic data of respondents

	MNUMS		TBSU	
	N	%	N	%
<b>Year of study</b>				
1	-	-	23	15,3%
2	15	12,4%	57	38%
3	58	48%	66	44%
4	48	39,6%	4	2,7%
<b>Faculty</b>				
General medicine	78		-	
Sociological	43		37	
Psychology and Education	-		64	
Natural sciences	-		49	
<b>Form of study</b>				
Intramural form of study	118	97,5%	97	64,7%
Extramural form of study	3	2,5%	53	35,3%
<b>Gender</b>				
Male	30	24,8%	37	24,7%
Female	91	75,2%	113	75,3%

Percent (%) - validper cent.

The sample number of respondents was compiled on the basis of a multistage random sample of the total number of students enrolled in four faculties and courses at MNUMS and TBSU.

The questionnaire was translated into Mongolian for students of MNUMS. To receive answers it was sent by e-mail and posted on social networks.

Research questions and hypotheses in the content of the questionnaire for students in Mongolia and Russia were divided into three modules in order to identify: 1) the level of computer literacy of students; 2) the assessment of the online teaching quality; 3) students' opinions about their adaptation and the effectiveness of learning with use of online technologies.

According to the ethical standards of the Helsinki Declaration (WMA Declaration of Helsinki - Ethical Principles for Medical Research Involving Human Subjects), the work done does not violate the rights of students.

The analysis of the data obtained was carried out with the help of theoretical analysis and statistical and mathematical methods. In the process of theoretical analysis, conclusions were made after processing of the obtained statistical material. The processing of the generalized data was carried out using the SPSS 22 package, Microsoft Excel, and Google Table.

## RESULTS

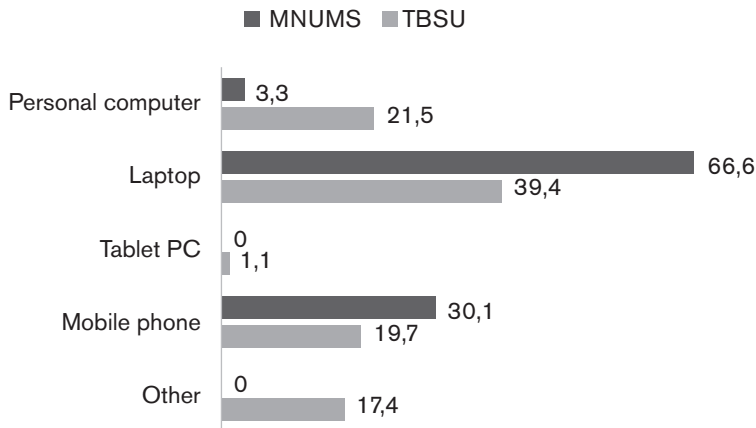
The main educational information system is [www.mnums.edu.mn](http://www.mnums.edu.mn) in MNUMS for the past 15 years, and the portal [www.sw.xcloud.mn](http://www.sw.xcloud.mn) is also successfully functioning. In the period of the transition of the university to DE, a separate website [e.learning.mnums.edu.mn](http://e.learning.mnums.edu.mn) was quickly created for all employees and students.

There has been an electronic information and educational network in TBSU for 11 years, which includes platforms [social.zabgu.ru](http://social.zabgu.ru), [distant.zabgu.ru](http://distant.zabgu.ru), and [webinar.zabgu.ru](http://webinar.zabgu.ru). It should be noted that these platforms allow students and university teachers to communicate in DE.

The first module of the author's questionnaire was focused on a comparative analysis of the existing computer competence of respondents from Mongolian and Russian universities. Perfect knowledge of online technologies allows the students to be sure that there are no significant problems with DE. The results of

answers to the question what types of devices you use in DE showed a significant difference (Diagram 1).

The students of MNUMS give preference to mobile electronic devices such as a laptop and a mobile phone, and this is equal to 96.7%; 3.3% of MNUMS students practically exclude attachment to stationary personal computers (PC). The students of TBSU, on the contrary, are the most diverse in the available choice of online devices. It should be noted that they work using a computer 6.5 times more often. Also, 17.4% of respondents in group 2 noted that they are ready to share a phone, a laptop, and PC. And as for Mongolian students, it is not generally typical for them to share mobile devices.



Percentage (%) - valid percentage.  
 "Other" option: shared phone, laptop and PC.

**Diagram 1.** Types of devices used for distance learning

The answers to questions on the possession of computer technology (Do you own computer technology?) did not reveal significant differences in these two groups (Table 2). Almost the same indicators are recorded in all answer options, and it indicates their sufficient knowledge of various computer equipment and certain information literacy.

**Table 2.** Computer skills indicators

Answers to the question	MNUMS		TBSU	
	N	%	N	%
In excellence	4	3,3%	13	8,7%
I am well-versed in	63	52,1%	72	48%
Satisfactory	50	41,3%	57	38%
Getting help	4	3,3%	8	5,3%

Percent (%) - valid percent.

The highest numbers are noted in the answers of students of two universities for good and excellent proficiency of computer technology, and in total this is equal to 55.4% at MNUMS, and 56.7% at TBSU.

The results on the variety of resources used by students in Mongolia and Russia revealed clear discrepancies (Table 3). Thus, students of MNUMS prefer individual work, using mainly e-mail (62%), the university's own platform (71.3%) and social networks (38.1%). As for TBSU students, they use mobile phone services to consult with a university teacher 3.8 times often than students in Mongolia, and 4.5 times often they use the online platform. Also, messengers are used two times more often.

**Table 3.** Online resources used in DE

Answers to the question	MNUMS		TBSU	
	N	%	N	%
I use my mobile phone to consult with the university teacher	7	5,5%	29	20,4%
I use the online platform	5	3,8%	26	18,2%
I use social networks	48	38,1%	60	41,9%
I use instant messengers	16	12,7%	32	22,5%
I use e-mail	77	62%	82	57,3%
Own university platform	89	71,3%	70	49,1%

Percent (%) - valid percent. Several options for answers.

The second module of questions was focused on students' assessment of the organization of work in a distance format of teachers in two universities during the period of COVID-19.

Significant differences in the forms of distance work were revealed. Thus, university teachers at MNUMS use synchronous and asynchronous formats of work and interaction with students equally effectively, both in real time and in postponing the reception and processing of information (Bergdahl & Nouri, 2020).

The research data confirm that at TBSU the distance education technologies are not developed to such an extent that university teachers are proficient at a variety of technical means and available technologies which are necessary for DL and interacting with students in real time. More than 10-15% of elderly age university teachers weakly or in no way manage computer technologies.

The greatest difference in results at MNUMS in comparison with TBSU was revealed in conducting online seminars (14.7 times more), online testing (10.9 times more), online lectures (8.6 times more) and using video conferences (7.3 times more).

**Table 4.** Forms of distance work used by university teachers

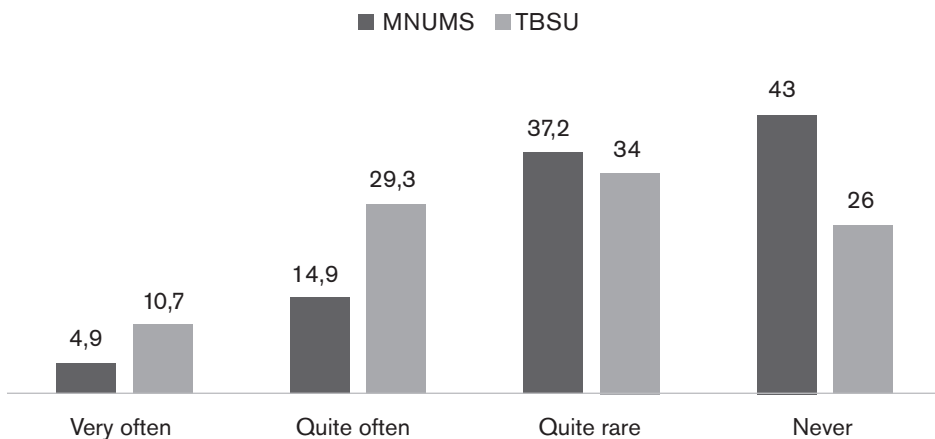
Answers to the question	MNUMS		TBSU	
	N	%	N	%
Lectures online	109	87,5%	14	10,1%
Seminars online	115	91,6%	9	6,2%
Individual consultations by use of e-mail, phone, Skype, etc.	-	-	43	30,4%
Posting the text training materials and presentations on TBSU / MNUMS website	119	95,2%	106	74,5%
Posting assignments for self-completion on the TBSU / MNUMS website	106	84,7%	113	79,4%
Checking self-fulfilling tasks through the personal account	99	79,3%	99	69%
Check self-fulfillment tasks by e-mail	82	65,2%	73	51,4%
Training video conferences	32	25,7%	5	3,5%
Online testing	77	61,5%	8	5,9%

Percent (%) - valid percent. Several options for answers.

It should be noted that there are problems in communication between the university teacher and the student during the period of isolation and giving classes online. That's why it was very important to identify the answers to seeking individual help from the teacher on learning issues. Diagram 2 shows that 43%

of MNUMS students do not consider that it is necessary for them to ask the university teacher to help them, and they are ready to solve independently all their problems with their studies. A for TBSU, this category of respondents is only 26%. But the frequency of appeal to the university teacher for support in the group of TBSU students is much higher than in the first one.

The results of answers on receiving support from university teachers during the DE period revealed a difference between the respondents of the two studied groups. Only 28% of MNUMS students responded positively that they received real support from university teachers. At TBSU in the second group, the proportion of students was 50.7% (an increase of 1.8 times). 67% of MNUMS students, in comparison with 35.3% of TBSU students, responded that the university teachers did not help them.



Percent (%) - valid percent.

**Diagram 2.** Appeal to university teachers for individual help on issues relating to learning

Extremely low numbers were received for the questionnaire of TBSU students on the assessment of the work of their university teachers (Table 5). Although the students of TBSU had more online contact with university teachers and received help during the studying of subjects in DE, only 33.5% of them rated the university teachers' work as "excellent" and "good" in comparison with MNUMS students (60%). 21.7% of respondents of the 2nd group rated the work of their university teachers unsatisfactorily (6.6 times) in comparison with the results of students of the 1st group (3.3%). Problems in the forms and timeliness of the provision of

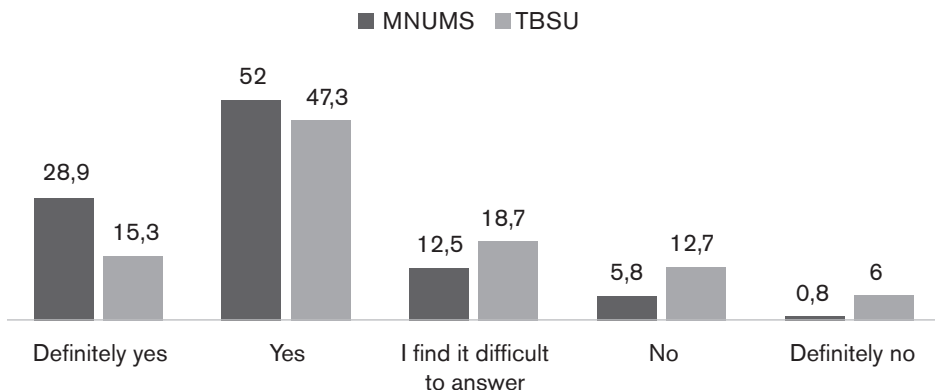
materials seem to cause uncertainty as well as questions to university teachers, to which students of TBSU cannot always receive adequate answers.

**Table 5.** Assessment of university teachers' work in DE

Answers to the question	MNUMS		TBSU	
	N	%	N	%
Excellent, everything is clear and interesting	-	-	21	13,7%
Good, but I'd like to have more additional materials on the studied topics	73	60%	29	19,8%
Satisfactory, I don't understand everything	28	23,3%	58	38,5%
Bad, very difficult and not clear	4	3,3%	33	21,7%
I find it difficult to answer	16	13,4%	9	6,3%

Percent (%) - valid percent.

This statement is partially supported by received answers to the question of the success and accessibility of the presentation of the online lectures by the teachers of the two universities (Diagram 3). 80.9% of respondents of the 1st group are fully satisfied with the provided learning material (the answer is "Definitely yes" and "Yes"). As for respondents of the 2nd group, only 62.6% of them answered this question positively.



Percent (%) - valid percent.

**Diagram 3.** Availability of the lecture material presentation by university teachers

Poor quality of the teacher's preparation of presentation material was noted by 14 students of MNUMS (or 11.6%) and 29 students of TBSU (or 19.3%). Almost



identical results were obtained in terms of satisfaction with the material provided online: 64% in the 1-st group and 68.7% in the 2-nd group.

When asked whether the university teacher tried to engage students in online dialogue when presenting his/her material, in two groups 11 students of MNUMS responded negatively, which was equal to 9.1%, and 24 TBSU students responded negatively, which was equal to 16%. Equal positive indicators were received at MNUMS (62.8%) and at TBSU (64, 6%).

About half of the students at both universities found it difficult to answer the question whether the teacher effectively used time in a remote format. Only 24% of MNUMS students and 26% of TBSU students answered this question positively (Table 6).

**Table 6.** The effectiveness of use of time by the university teacher in a distance format

Answers to the question	MNUMS		TBSU	
	N	%	N	%
Definitely no	9	7,4%	10	6,7%
No	19	15,7%	27	18%
I find it difficult to answer	64	52,9%	68	45,3%
Yes	29	24%	39	26%
Definitely yes	-	-	6	4%

Percent (%) - valid percent.

As for 18.2% of Mongolian students and 32% students of Russian university, they answered that university teachers could not estimate the educational work in an online format in time. However, two-thirds of MNUMS respondents (60.3%) and 69 students of TBSU (46%) responded positively that the assessments and their informative support were timely.

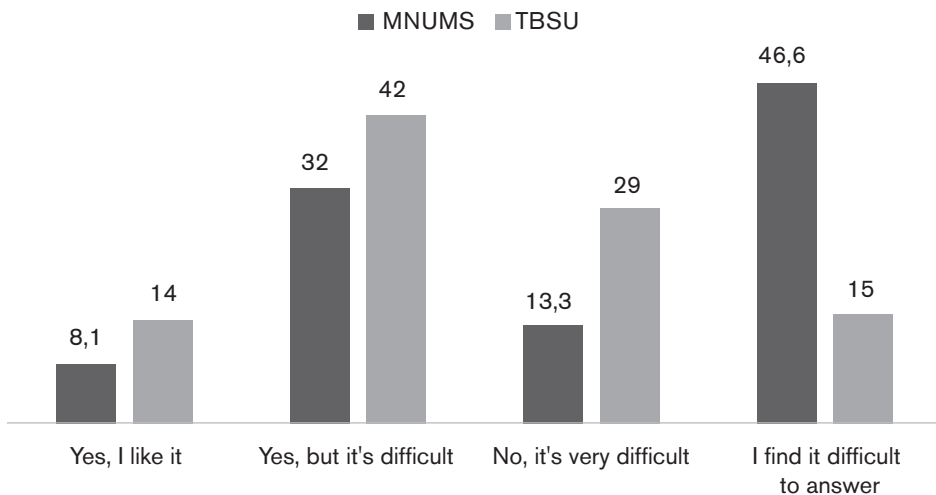
The third module of questions considered the answers of students of two countries in relation to effectiveness in online learning. There is no doubt about the adaptation of respondents to the new learning environment with the use of DET. The same responses were received in the two studied groups that had no problems with adaptation processes during DE: 59.5% at MNUMS and 58.4% at TBSU. The same results were recorded in the responses of students who could not organize their studies remotely during the period of COVID-19 (Table 7).

**Table 7.** Adaptation to the new conditions of DE

Answers to the question	MNUMS	TBSU
Yes, completely	20%	18,9%
Yes, but there are some difficulties	39,5%	39,5%
Not exactly	19,2%	21,2%
I never adapted.	21,3%	19,5%

Percent (%) - valid percent.

The fairly low percentage of comfortable education was noted by students of both universities (8.1% and 14% respectively (Diagram 4)). Inconveniences with DE occurred in 13% of students at MNUMS and 29% of students at TBSU. However, it was very difficult for about half of all respondents in the 1st group (46.6%) to answer the question about the comfort of learning. Only 15% of students in the 2nd group could not answer.



Percent (%) - valid percent.

**Diagram 4:** Comfort of distance learning

The most obvious figures for improving knowledge before and after the study in the spring semester were obtained from students of the 1st group. In general, there is also a positive dynamic of good and excellent results in two studied groups, but these indicators at MNUMS are significantly higher: "Good" 3.6 times, "Excellent" 7.3 times. With active self-study in the online format the indicator of

unsatisfactory level of knowledge also decreased: at MNUMS by 4.2 times, and at TBSU by 1.5 times.

**Table 8.** Skills/knowledge level at the beginning and the end of DE

Answers to the question	At the beginning of DE		At the end of DE	
	MNUMS	TBSU	MNUMS	TBSU
Very poor	17,4%	13,3%	4,1%	8,6%
Poor	37,2%	16%	9,1%	10,7%
Satisfactory	30,6%	54,7%	30,6%	46%
Good	14%	14%	50,4%	28%
Excellent	0,8%	2%	5,8%	6,7%

Percent (%) - valid percent.

The absolute majority of respondents at TBSU (78%) noted that their level of training load increased significantly after transition to online learning format. It was 65% at MNUMS. The transition to a distance format of education at universities was a forced measure in order to minimize the risks of infection of youth and the spread of COVID-19. That is why students were not ready for the increase of the educational load in electronic format. There are no answers stating that the level of training load has decreased.

The effectiveness of distance learning as “good” and “excellent” was noted by 59.5% of participants in group 1. The results in group 2 were lower, equal to 41.3%. In both groups the approximate figures in the difference of answers to the question, “whether you consider successful your educational effectiveness”, were at the level of 12.4% and 19.4% respectively.

There are no significant differences between the groups in terms of full and partial satisfaction with DET, and the data obtained are virtually the same.

**Table 9.** Satisfaction with distance education

Answers to the question	MNUMS		TBSU	
	N	%	N	%
Fully	22	18,2%	23	15,3%
Partially	83	68,6%	90	60%
Unsatisfied	16	13,2%	37	24,7%

Percent (%) - valid percent.

The results of the answers to the question about the advantage of DE revealed a big difference: almost all MNUMS students (over 90%) noted the positive aspects of DE. The answers to the same questions of TBSU respondents were much more modest: they were no more than 20 - 30%.

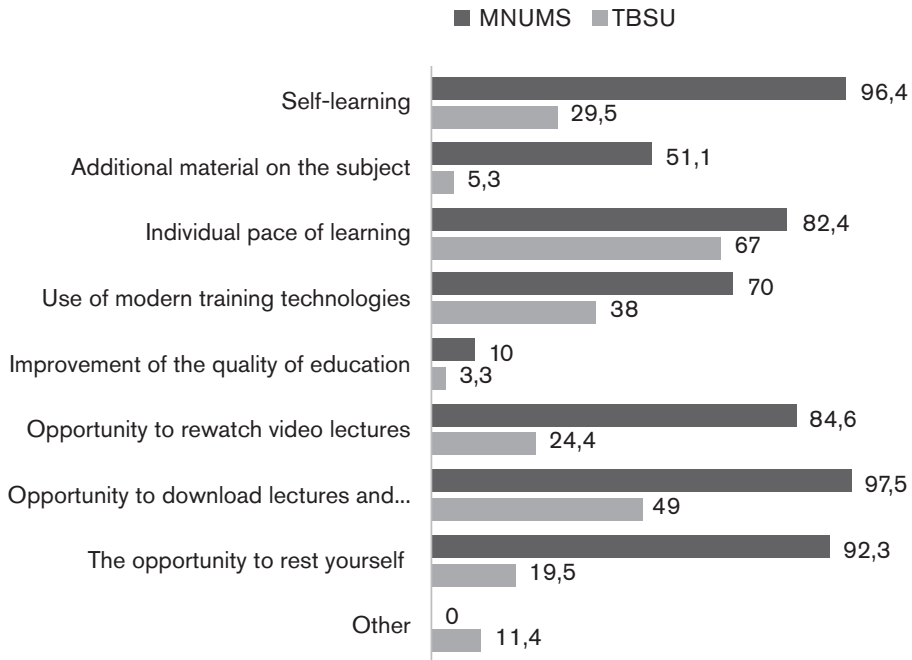
**Table 10. Advantages of DE**

<b>Answers to the question</b>	<b>MNUMS</b>	<b>TBSU</b>
Flexibility of the educational process	93,3%	32,1%
The ability to combine study with work	90,1%	22,4%
Processability of the learning process (use of information technologies)	96,7%	20,8%
Getting practical skills	-	9,4%
Learning in a comfortable and familiar environment	-	37%
Ease of updating the content and the possibility of archiving old material: any educational material remains available for download	93,3%	24,5%
I don't see any	16,6%	25,9%
I find it difficult to answer	26,6%	6,5%
Other	-	6,9%

Percent (%) - valid percent. Several options for answers

"Other" option: reduced transportation costs (saving money); more time; no advantages.

The answers to the question of what the students liked about the DE process (Diagram 5) showed significant differences in the desire of students at MNUMS in comparison with the students at TBSU to engage in self-study, master an additional volume of educational material, and other opportunities. Probably, the students of group 1 are more independent when they plan their working time and when they want to use their time better in the process of distance learning in comparison with the data of students from the group 2. Our conclusions are confirmed by the last indicator of the diagram - other (11, 4%).



Percent (%) - valid percent. Several options for answers  
 "Other" option: nothing; I liked nothing; nothing, I didn't absorb the knowledge; more free time, etc.

**Diagram 5.** What you liked in the process of distance education

Part of the evidence of dissatisfaction with distance education reveals the answers to the question of how hard the students studied during the period of distance education. 25.3% of students at TBSU appeared to study a little and not enough and this undoubtedly affected the quality of their education in the distance mode. As for MNUMS students, this figure was 14.8%.

**Table 11.** How hard the students studied during the period of distance education

Answers to the question	MNUMS		TBSU	
	N	%	N	%
Weak	7	5,8%	12	8%
Little	11	9%	26	17,3%
Enough	32	26,4%	51	34%
Diligently	57	47,1%	40	26,7%
Very hard	14	11,7%	21	14%

Percent (%) - valid percent.

Insignificant discrepancies in the obtained data of two groups on the issues of existing difficulties in the process of distance education are shown in Table 12. At the same time, 52.9% of respondents at MNUMS indicated technical difficulties in mastering platforms for DE in comparison with 38% of respondents at TBSU.

**Table 12.** Difficulties in the DE process

Answers to the question	MNUMS		TBSU	
	N	%	N	%
Technical difficulties in mastering platforms for DE	64	52,9%	57	38%
Increased volume of tasks and loads	79	65,3%	81	54%
Difficulties in combining special programs with platforms for DE	59	48,8%	53	35,3%
Lack of communication	67	55,4%	71	47,3%
Internet connection problems	72	59,5%	69	46%
Unwillingness of university teachers to work remotely	27	22,3%	33	22%

Percent (%) - valid percent. Several options for answers

The students gave very contradictory answers to the final question about the desire to continue their studies in DE. 80.7% of TBSU students are looking forward to the start of full-time education, as they consider it more informative and familiar. 63.4% of MNUMS students would like to continue the educational process online.

## CONCLUSION

In the period of pandemic, the transition from the traditional system to DE has been the only correct way to save education all over the world. Nevertheless, the emergency transition showed both positive aspects and problems of system. It is possible to solve these problems but they can only be solved with the interaction of all interested sides, starting at state level, the administration of universities, teaching staff and ending with student youth, the consumers of DET.

The research carried out at the universities in Mongolia and Russia showed a certain difference in approaches to solving alternative problems connected with the transition to DE and identification problems among students of two countries.

Comparative analysis of computer competences showed that the students at MNUMS prefer using a mobile phone or laptop (96, 7%). Thus, they are more focused on mobility and preference for communication, and it does not depend on their location (Lopatina & Efremov, 2020). The TBSU students like using a wide variety of electronic devices which they possess. It should be noted that they work on a personal computer (PC) 6.5 times more often, and they also often share a mobile phone, laptop, or PC.

Indicators of computer skills did not show significant differences between the two groups. Mastery in perfection and at a good level was noted by students in both groups — 55.4% and 56.7%, respectively. The answers of students at MNUMS showed excellent results for using online resources: 71% of students work on the university's own platform, and additionally they use e-mail (62%) and social networks (38, 1%). It is known that the results of the 2nd group are much lower. Thus, only 49.1% of TBSU students use their own university platform, and 22.5% prefer using messengers.

Students' assessment of the training process in distance education presented significant differences for the approach of Mongolian and Russian university teachers. University teachers at MNUMS use asynchronous and synchronous teaching formats more variably. In comparison with the university teachers at TBSU, they give online lectures, seminars, video conferences 10-15 times more often. Such various forms of interaction that exist in online learning at MNUMS are understandable, convenient and on demand by students.

The obtained low indicators of the use of the above-mentioned online technologies by teachers from TSU depend on the lack of technical equipment and the inability of teachers to work, and do not depend on the provided information and technical conditions of the university. Teachers' unwillingness to spend time on video sessions with students referring to problems with the Internet leads to errors and dissatisfaction with learning disciplines. The teachers also voice the motivation. They explain that the preparation for a video conference takes a lot of time and the university teachers at TBSU are pressed for time and they do not have an opportunity to prepare video materials for each classes. The low-informative online classes resulted in appealing to university teachers for help. At TBSU the amount of appealing for help was in 1.8 times higher than at MNUMS. The questions which appear in the process of doing educational tasks require

consultation with the university teachers with a help of mobile communication. As a result, the workload on the university teacher multiplies (Cherdakli, 2020).

We can assume that at the beginning the correctly chosen varied way to deliver lectures and handout material to students at MNUMS leads to such situation that students will not have additional questions for university teachers in the future.

The students' assessments of the work of Mongolian university teachers also indicate more trusting relationship in communication in the process of DE (60%) in comparison with a positive assessment of the work of university teachers at TBSU (only 33.5%).

The respondents of the first group rated the work of university teachers as unsatisfactory 6.6 times less than in the second one. 80.9% of students at MNUMS are satisfied with the training material provided in comparison with 62.6% of students at TBSU. About 60% of students at MNUMS and TBSU did not experience adaptation problems during the transition to DE. Also, almost 20% of respondents in two groups were not able to adapt to DET.

A low percentage of comfort in online learning was identified in the two groups, from 8% to 14%. The surprise was that 46.6% of students at MNUMS were not able to determine their level of comfort in the process of DE. It should be noted that it was 3.1 times higher than at TBSU.

It is noted that the indicator of unsatisfactory level of knowledge gained significantly decreased 4 times at the end of the academic year at MNUMS compared to the DE beginning. The growth of knowledge at the end of DE increased 7.3 times. Therefore, the results obtained confirm the motivation and commitment of the students at MNUMS to independent forms of mastering DET. The students at TBSU noted a high growth in workload (78%) in comparison with 65% at MNUMS.

It was noted that only 14.8% of students at MNUMS studied poorly and little in comparison with 25.3% of students at TBSU. Technical difficulties in the process of mastering online platforms were noted by 52.9% of respondents at MNUMS versus 38% of respondents at TBSU. More than half of the MNUMS and TSU students were only partially satisfied with DET.

The students at MNUMS in 63.4% of cases expressed a desire to continue their studies in online format, as long as they consider that DE will not affect the process of developing their competencies and the quality of training of the



graduate. Among the students at TBSU who liked offline learning, only 19.3% of them supported DE.

Therefore, the investigation carried out showed a significant difference in the approach to solving problems at MNUMS and TBSU for organizing DET. It significantly influenced the students' satisfaction with the proposed online forms and opportunities for mastering academic programs and communication with university teachers.

It is very important to note that all students at MNUMS study on an off-budget basis and the financial costs of their parents may make them more responsible and study hard.

The various levels of competence of teachers and the need to develop an IT infrastructure for technical support of education online in extreme conditions of forced transition of educational process in higher education institutions to DE are shown.

The success of TBSU students in DE requires stronger motivation to study, the development of self-control, willpower, and responsibility, than that of MNUMS students. Mongolian students have demonstrated considerable competence and mobility in the use of online technologies.

Initially, the correctly chosen varied paths of presenting the lecture and handouts to MNUMS students subsequently led to a reduction in the number of additional questions to teachers.

Additional training in computer literacy, advanced training, and the introduction of various remote forms of classes should be offered to university teachers at TBSU. It is important to assess the criterion-evaluative competencies of students in the context of distance learning (Korolkov & Shevyakova, 2020). The literacy of students is sure to depend on the quality of the material taught and presented by university teachers.

Undoubtedly, the introduction of DET in universities is becoming, in addition to the traditional form of education, an important change in the modernization of higher education. The simultaneous development of online and offline forms of the educational process will be a natural condition for students' training and will maximize the interaction of all parties concerned: from the university teacher to the student and vice versa.

## SUGGESTIONS AND RECOMMENDATIONS

Based on the findings of the study, it is recommended that both teachers and educational authorities should be more constructive in implementing DET. The need to adapt teachers and students is an important daily task in the educational process at present.

It is suggested that the following approaches to improve DE should be considered and pursued:

- timely interaction and synchronization of the work of heads of structural units in universities, including faculties and departments;
- establishing controls at all stages of the organization and provision of DE;
- organization of an effective feedback system for student youth in order to quickly identify and solve problems that hinder successful DE;
- adapting the system of supplementary computer literacy training to the needs of teachers, using the administrative resources of educational institutions;
- organization of different workshops and conferences to share experiences in implementing a variety of methodological approaches to improving online learning;
- providing and developing online resources, in accessible form, for video lessons and other materials for students to learn the subject at an accessible time and volume.

The pandemic has become not only a major challenge, but also an impulse for transforming the higher education system for TBSU and MNUMS. The new challenges call for a serious and thoughtful approach to the active introduction of adapted DE tools in all universities.

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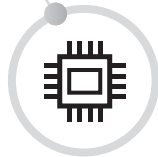
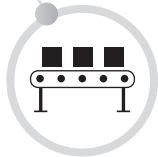
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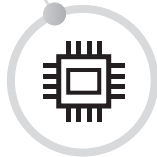
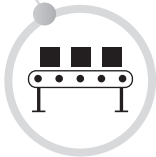
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## FROM REVIEWS

Main aim of the monograph titled *Problems and perspectives of contemporary education*, is to thoroughly explore, critically analyze and elaborate complex, dynamic, multilayers and reciprocal relationship between significant changes in educational social environment and readiness, of educational system to anticipate, recognize, understand and adequately respond to those challenges. All contributing authors enthusiastically embraced the notion that education presents an important and proactive agent of social changes and consequently accepted all challenges as an opportunity for improvement and development of both society and educational system.

**Professor Emeritus Djuradj Stakic**  
Pennsylvania State University, USA

The monograph is dedicated to looking into extremely significant and current concerns within educational policy and educational practice. The selected topic is viewed from the perspectives of contemporary theoretical approaches, but it is also empirically researched. A very large and relevant literature was used both for explaining the selected research subject and discussing the obtained results. A diverse, contemporary methodology was applied in researches, and the authors of works, starting from the existing results, analysed issues at a deeper level and illuminated some aspects that had not been studied thus far.

**Professor Marina Mikhailovna Mishina**  
Russian State University for the Humanities, Russia

The main topics covered by the monograph can be classified as traditional to some extent — related to approaches to learning, language culture etc., and modern — connected with the andragogical view, coaching in teacher training, also the problem of distance learning during the covid pandemic, and models for preventing problem behaviors... The main leitmotif that permeates the content of all presented articles is the topic of the development of key skills, attitudes, experience, creativity — by both subjects in the educational process, and it gives semantic integrity to the monograph.... In view of the new social realities, a reasonable emphasis is placed on the continuing education and development of the teachers themselves, dictated by the accelerated pace of social change.

**Professor Teodora Stoytcheva Stoeva**  
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